

Professor Christian Speck

Imperial College London

DNA Replication Group

I. Biographical Data

Name: Christian Speck
Date of birth: 03/10/1970
Address: Institute of Clinical Sciences (Faculty of Medicine)
Imperial College London, Hammersmith Hospital Campus
Du Cane Road, London, W12 0NN, UK
Tel: +44 (0)20 8383 3387
Email: christian.speck@imperial.ac.uk

II. Research

2016 – present Full Professor
Chair in Genome Biochemistry & Molecular Biology
Institute of Clinical Sciences, Imperial College London, UK

2015 - present Wellcome Trust Investigator
Institute of Clinical Sciences, Imperial College London, UK

2015 - 2016 Reader in Genome Biochemistry & Molecular Biology
Institute of Clinical Sciences, Imperial College London, UK

2013 - 2015 Lecturer
Institute of Clinical Sciences, Imperial College London, UK

2006 - 2013 Group Leader
Clinical Science Centre, Medical Research Council, UK

2000 - 2006 Postdoctoral Fellow
Cold Spring Harbor Laboratory, NY
Research Advisor: Dr. Bruce Stillman (President of Cold Spring Harbor Lab.)

1997 - 2000 Graduate Student
Max-Planck-Institute of Molecular Genetics, Berlin
Research Advisor: Prof. Dr. Walter Messer

III. Qualifications

2000 April Doktor der Naturwissenschaften Biochemie (04/27/2000)
Freie Universität Berlin, Berlin, Germany (01/1997 – 04/2000)

1997 Jan. Diplom Biochemie (05/01/1997),
Freie Universität Berlin, Berlin, Germany (08/1995 – 01/1997)

1995 May Diplom Ingenieur Biotechnologie (15/05/1995),
Technische Fachhochschule Berlin, Berlin, Germany (01/1991 – 05/1995)

IV. Honours & Awards

2015 Wellcome Trust Investigator Award
2015 Elected Fellow of the Royal Society of Biology
2001 - 2004 The Leukemia & Lymphoma Society Postdoctoral Fellowship
1997 - 2000 Max-Planck Society PhD Fellowship

V. Editorial Board Memberships

2015 - Biochemical Journal (Editorial Advisory Panel Member)
 2013 - 2017 Microbial Cell

VI. Society memberships

2014 - Society of Biology
 2006 - Biochemical Society

VII. Consortium Memberships

2018 - Imperial College Centre for Drug Discovery
 2017 - Wellcome Trust LonCEM cryo-EM consortium
 2017 - Imperial Centre for Structural Biology
 2017 - Imperial Network of Excellence in "Innovative Imaging Across Scales"

VIII. Organisation of scientific meetings / workshops

2017 Cryo-EM Innovation Mixer (Industry & academic meeting)
 2016 - Biochemistry Club (monthly work in progress meeting)

IX. Current Group:

6 postdoctoral fellows, 4 PhD students, 2 technicians

X. Funding: Total funding awarded since 2006: **£ 9.779.179**

BBSRC project grant (2020 - 2023) - £970,354 (PI)
 MRC funded PhD studentship (2019 - 2023) - £140,000 (PI)
 BBSRC equipment grant (2019 - 2020) - £182,677 (Co-I)
 BBSRC project grant (2018 - 2021) - £446,669 (PI)
 Wellcome Trust equipment award (2018 - 2023) - £197,672 (Co-I)
 EPSRC funded student (2017 - 2021) - £130,000 (PI)
 WT Cryo-Electron Microscopy equipment award (2017 -2022) - £3,000,000 (Co-I)
 Wellcome Trust investigator award (2015 - 2020) - £1,676,296 (PI)
 BBSRC project grant (2016 - 2019) - £372,737 (PI)
 BBSRC project grant (2014 - 2017) - £394,260 (PI)
 MRC funded PhD student (2014 - 2018) £122,500 (PI)
 EPSRC funded studentship (2014 - 2019) £96.000 (Co-I)
 MRC funding U120085811 to Christian Speck (2011 - 2016) - £879,500 (PI)
 MRC funded PhD student (2010 - 2014) £118,500 (PI)
 MRC funded PhD student (2008 - 2012) £117.000 (PI)
 MRC funded PhD student (2007 - 2011) £115,000 (PI)
 MRC funding U120085811 to Christian Speck (2006 - 2010) - £787,500 (PI)

Fellowships to group members: Total funding awarded since 2006: **£ 602,000**

Shenaz Allyjaun ICL Presidents Scholarship (2019 - 2023) - £140,000
 Sarah Schneider DFG Postdoctoral Fellowship (2018 - 2020) - £72,000
 Yasunori Noguchi JSPS Postdoctoral Fellowship (2018 - 2020) - £80,000
 Max Reuter DFG Postdoctoral Fellowship (2016 - 2018) - £72,000
 Katalin Kondas Daphne Jackson Fellowship (2016 - 2018) - £ 48,000
 Alice Roedel Erasmus student Fellowship (2014 - 2015) - £3,500
 Carmen Herrera MRC Millennium Fellowship (2012 - 2013) - £40,000
 Stefan Samel DFG Postdoctoral Fellowship (2011 - 2013) - £65,000
 Christian Winkler Erasmus student Fellowship (2012) - £2,500
 Anne Musahl Erasmus student Fellowship (2009) - £2,000
 Nancy Stanslowsky Erasmus student Fellowship (2009) - £2,000
 Stefan Uhle Marie Curie Intra-European Fellowship (2006-2007) - £70,000

XI. Teaching experience

2014 - Lecturing - MSc Molecular Sciences
 2014 - Lecturing – MRes Cancer Biology
 2014 - 2015 Imperial College Educational Program for Lecturers
 2009 - Lecturing for MRC-CSC International PhD Program
 Highly rated lecturer (CSC students 2011/2012 questionnaire)
 2009 - Member of the Postgraduate Training and Education Committee
 2008 - Internal / external examiner of 6 PhD theses in UK / Italy
 2007 - Supervision of 8 PhD students / 3 graduated (2011 / 2014 / 2018)
 2007 - Supervision of 16 BSc, MSc students (Germany, UK, Italy, France, Canda)
 2006 - Supervision of 10 Postdoctoral fellows
 2006 - Mentor of >15 PhD students
 2006 - 2009 Lecturing for the MRC MRes program

XII. Peer review**Scientific Evaluation Panel member:**

2018 Horizon 2020-WIDENING-2018 (Panel member)
 2018 German Academic Exchange Agency (DAAD) (Panel member)
 2017 Horizon 2020-MSCA-IF-2017- LIF (Panel member)
 2016 Horizon 2020-MSCA-IF-2016- LIF (Panel member)
 2016 French National Research Agency - ANR (Panel member)

Research funding bodies Reviewer:

Medical Research Council (MRC), UK	Royal Society, UK
Cancer Research UK	Wellcome Trust, UK
BBSRC, UK	French National Cancer Institute (INCa)
Human Frontier Science Program (HFSP)	Estonian Research Council Research Grant
The Leverhulme Trust, UK	Research Grant Council (RGC) of Hong Kong
Fondazione Telethon, Italy	French National Research Agency (ANR)
Fondation pour la Recherche Médicale, France	NSF, USA

Scientific journals:

Nature	Nature Structure & Molecular Biology
Molecular Cell	Genes & Development
Nature Cell Biology	EMBO Journal
Nature Communications	PNAS
Cell Reports	Nucleic Acids Research
PLOS Genetics	EMBO Reports

XIII. Departmental and other Services

2017 - Setup and management of the ICL Hammersmith multi-user cryo-EM facility
 2017 - Chair of the Departmental Athena SWAN Committee – Silver Award 2017
 2015 - Departmental College Tutor
 2013 - 2016 Chair of the Departmental Athena SWAN Committee – Bronze Award 2014
 2010 - 2011 Organizer of the PhD lecture Series
 2010 Chair of the Student Recruitment Panel – Molecular Biology
 2009 - 2012 Organization of the MRC-CSC Summer Student Program
 2009 - 2010 Organizer of the MRC-CSC Seminar Series
 2009 - Current Member of the Departmental Recruitment Panel
 2009 - Current Member of the Postgraduate Education and Mentoring Committee
 2009 Development of the MRC-CSC Student Website

XIV. Science Communication

2020	School workshop
2018	Family day 3D printing workshop
2017	School visit with lectures and 3D printing workshop
2016	Microscopy workshop for local primary school
2015	Biological Picture of the Day (BPOD)
2015	Microscopy workshop for local primary school
2014	Biological Picture of the Day (BPOD)
2013	Workshop on Science Communication
2011	Science presentation at local primary school
2009	Seminar presented to the local community

XV. Collaborations

Huilin Li, Van Andel Institute, USA
Juri Rappsilber, Wellcome Centre for Cell Biology Edinburgh, UK
Bruce Stillman, Cold Spring Harbor Laboratory, USA
Richard Henderson, MRC-LMB Cambridge, UK
Enrique Martinez-Perez, Imperial College London, UK
Till Bartke, Helmholtz Centre Munich, Germany
David Rueda, MRC-LMS, UK
Richard Festenstein, Imperial College London, UK
Niall Dillon, MRC-LMS, London, UK
Clemens Schmidt, Johannes Kepler Universität, Linz, Austria
David Rueda, Imperial College London, UK

XVI. References**Post-doctoral Supervisor:**

Prof. Bruce Stillman, President & CEO of Cold Spring Harbor Laboratory, NY, USA

stillman@csih.edu

Tel.: 001-516-367-8383

Prof. Julian Blow, University of Dundee, Dundee, UK

j.i.blow@dundee.ac.uk

Tel.: 0044-1382-385797

Prof. Andreas Ladurner, Ludwig-Maximilians-University Munich, Munich, Germany

andreas.ladurner@med.uni-muenchen.de

Tel.: 0049-89-2180-77095

XVII. Publications

In total 45 publications, including 33 journal papers, 3 book chapters and 9 reviews.
h-index= 27, >3150 citations (Google Scholar). Total IF= 382.

In preparation / in revision / bioRxiv:

46. Hu Y, Tareen A, Sheu Y-J, Ireland W, **Speck C**, Li H, Joshua-Tor, L, Kinney J and Stillman B
(2020) Evolution of DNA Replication Origin Specification and Gene Silencing Mechanisms
bioRxiv

Published / in press:

45. Yuan Z*, Schneider S*, Dodd T*, Riera A*, Bai L*, Yan C, Magdalou I, Ivanov I#, Stillman B#, Li H#,
and **Speck C** # (2020)
Structural mechanism of helicase loading onto replication origin DNA by ORC-Cdc6
Proc Natl Acad Sci U S A *accepted* – **IF 9.4**
*Shared first authorship #Corresponding author
44. Roman-Trufero M, Ito CM, Pedebos C, Magdalou I, Wang YF, Karimi MM, Moyon B, Webster Z,
di Gregorio A, Azuara V, Khalid S, **Speck C**, Rodriguez T, Dillon N (2020)
Evolution of an amniote-specific mechanism for modulating ubiquitin signalling via
phosphoregulation of the E2 enzyme UBE2D3
Mol Biol Evol. Mar 7. pii: msaa060. doi: 10.1093/molbev/msaa060 – **IF 14.8**
bioRxiv DOI:10.1101/750505
43. Mendes ML, Lutz Fischer L, Chen1 ZA, Barbon M, J. O'Reilly F, Giese S, Bohlke-Schneider M,
Belsom A, Therese Dau T, Combe CW, Graham M, Eisele MR, Baumeister W, **Speck C**,
Rappsilber JS (2019)
An integrated workflow for crosslinking mass spectrometry
Molecular System Biology Sep;15(9):e8994 - **IF 9.8**
42. Yu Y, Yue B, Ji S, Lohneis P, Kemper K, Silvis M, Qutob N, Rooijen E, Werner-Klein M, Li L, Dhawan
D, Meierjohann S, Reimann M, Elkahlon A, Treitschke S, Dörken B, **Speck C**, Mallette FA, Zon
LI, Holmen S, Peeper DS, Samuels, Schmitt CA, Lee S (2018)
Targeting the senescence-overriding cooperative activity of structurally unrelated H3K9
demethylases in melanoma
Cancer Cell Apr 9;33(4):785 – **IF 23.2**
41. Noguchi Y*, Yuan Z*, Bai L*, Schneider S, Zhao G, Stillman B#, **Speck C**#, Li H# (2017)
Cryo-EM structure of Mcm2-7 double hexamer on DNA suggests a lagging strand DNA
extrusion model
PNAS, Nov 7;114(45):E9529-E9538 - **IF 9.7**
*Shared first authorship #Corresponding author
40. Riera A, Barbon M, Noguchi Y, Reuter LM, Schneider S, **Speck C** (2017)
From structure to mechanism – understanding initiation of DNA replication
Genes & Development, Jun 1;31(11):1073-1088 - **IF 12.6 - review**

39. Yuan Z*, Riera A*, Bai L*, Sun J*, Nandi S, Spanos C, Chen ZA, Barbon M, Rappsilber J#, Stillman B#, **Speck C#** and Li H# (2017)
Structural basis of MCM2-7 replicative helicase loading by ORC-Cdc6 and Cdt1
Nature Structure & Molecular Biology, Mar;24(3):316-324 – **IF 13.3**
*Shared first authorship #Corresponding author
- *This structure shows in near atomic detail how the helicase loader engages the replicative helicase and highlights Cdt1 as a crucial factor in generating a topological link between the helicase and origin DNA.*
38. Tognetti S, **Speck, C** (2016).
Replicating repetitive DNA.
Nature Cell Biology 18, 593-594. – **IF 19.7 – News & Views**
37. **Speck, C** (2016).
Exceeding the limits – Cdc45 overexpression turns bad.
Cell Cycle, 15(14): 1809–1810 – **IF 5.3 – News & Views**
36. Herrera MC*, Tognetti S*, Riera A, Zech J, Clarke P, Fernández-Cid A, **Speck C** (2015)
A reconstituted system reveals how activating and inhibitory interactions control DDK dependent assembly of the eukaryotic replicative helicase
Nucleic Acids Research, Sep 3. - **IF 9.1**
* Shared first authorship
35. Chang F, Riera A, Evrin C, Sun J, Li H, **Speck C***, Weinreich M* (2015)
Cdc6 ATPase activity disengages Cdc6 from the pre-replicative complex to promote DNA replication
eLife, Aug 25;4. - **IF 9.3**
*Corresponding author
34. Sun J, Yuan, Z, Stillman, B*, **Speck, C*** and Li, H* (2015)
Structure and function studies of replication initiation factors
Springer Press, the Initiation of DNA Replication in Eukaryotes – first edition, Pages 427-441, February 2016 - **book chapter**
*Corresponding author
33. Riera A and **Speck C** (2015)
Licensing of replication origins
Springer Press, the Initiation of DNA Replication in Eukaryotes – first edition, pp 189-211
February 2016 - **book chapter**
32. Riera A and **Speck C** (2015)
MCM2-7 - Opening the gate to DNA Replication
Cell Cycle, 14(1):6-8 - **IF 5.3 – review**
29. Tognetti S, Riera A and **Speck C** (2014)
Switch on the engine – how the eukaryotic replicative MCM2-7 helicase becomes activated
Chromosoma, Mar 12 124(1):13-26.- **IF 3.3 – review**
31. Silva N, Ferrandiz N, Barroso C, Tognetti S, Lightfoot J, Telecan O, Encheva V, Faull P, Hanni S, Furger A, Snidjers B, **Speck C** and Martinez-Perez E (2014)
The fidelity of synaptonemal complex assembly is regulated by a signaling mechanism that controls early meiotic progression
Developmental Cell, Nov 24;31(4):503-11 - **IF 10.4**

30. Sun J*, Fernandez-Cid A*, Riera A*, Tognetti S, Yuan Z, Stillman B#, **Speck C#**, Li H# (2014)
Structural and mechanistic insights into Mcm2-7 double-hexamer assembly and function
Genes & Development, Oct 15;28(20):2291-303 - **IF 12.6**
* Shared first authorship # Corresponding author

** Here we identified the structural organization of the MCM2-7 double-hexamer, which explains how helicase activity is restricted in G1 phase of the cell cycle, but is primed as well for activation during the G1-S transition.*

28. Samel AS, Fernández-Cid A, Sun J, Riera A, Tognetti S, Herrera MC, Li H, **Speck C** (2014)
A unique DNA entry gate for regulated loading of the eukaryotic replicative helicase onto DNA
Genes & Development, Aug 1;28(15):1653-66 - **IF 12.6**
The Altmetric score of this publication is one of the highest ever scores recorded in this journal (ranked #3 of 1,563 articles)

** This publication not only identifies a central mechanism of DNA replication – the DNA entry gate of the replicative helicase, but also forms the basis for future discoveries on helicase activation, DNA repair and termination of DNA replication.*

27. Riera A, Tognetti S and **Speck C** (2014)
Helicase loading: How to build a MCM2-7 double-hexamer
Seminars in Cellular and Developmental Biology, Jun;30:104-9 - **IF 6.2 – review**

26. Evrin C, Fernández-Cid A, Riera A, Zech J, Clarke P, Herrera MC, Tognetti S, Lurz R, **Speck C**. (2014)
The ORC/Cdc6/MCM2-7 complex facilitates MCM2-7 dimerisation during pre-replicative complex formation
Nucleic Acids Research, Feb 1;42(4):2257-69 - **IF 9.1**

25. Riera A, Li H*, **Speck C*** (2013)
Seeing is believing – the MCM2-7 helicase trapped in complex with its DNA loader
Cell Cycle, Aug 21;12(18).- **IF 5.3 – review**
*Corresponding author

24. Sun J*, Evrin C*, Samel S, Fernández-Cid A, Riera A, Kawakami H, Stillman B#, **Speck C#**, Li H#
Cryo-EM structure of a helicase loading intermediate containing ORC-Cdc6-Cdt1-MCM2-7 bound to DNA (2013)
Nature Structure & Molecular Biology, August 5, (20), 944–951 – **IF 12.7**
*Shared first authorship # Corresponding author
Highly accessed

**This study identified the structure of the replicative helicase in complex with its loader, a first in eukaryotes, that explains important principles of complex assembly and helicase loading.*

23. Fernández-Cid A, Riera A, Tognetti S, Herrera MC, Samel S, Evrin C, Winkler C, Gardenal E, Uhle S, **Speck C. (2013)**
An ORC/Cdc6/MCM2-7 complex is formed in a multistep reaction to serve as a platform for MCM2-7 double-hexamer formation
Molecular Cell, Volume 50, Issue 4, 577-588, 18 April - **IF 15.3**
- New and Views:**
MCM Loading—An Open-and-Shut Case?
Samson RY and Bell SD
Molecular Cell, Volume 50, Issue 4, 23 May, Pages 457–458
- *This publication shows how Cdt1 promotes ATPase dependent complex assembly, which is important, as it explains how Cdt1 overexpression causes re-replication and promotes tumorigenesis.*
22. Riera A*, Fernández-Cid A*, **Speck C (2013)**
The ORC/Cdc6/MCM2-7 complex, a new power player for regulated helicase loading
Cell Cycle, Jun 24;12(14) - **IF 5.3 – review**
*Shared first authorship
21. Evrin C, Fernández-Cid A, Zech J, Herrera MC, Riera A, Clarke P, Brill S, Lurz R, **Speck C. (2012)**
In the absence of ATPase activity, pre-RC formation is blocked prior to MCM2-7 hexamer dimerization.
Nucleic Acids Research, Mar 1;41(5):3162-72 - **IF 9.1**
20. Sun J, Kawakami H, Zech J, **Speck C**, Stillman B, Li H. (2012)
Cdc6-Induced Conformational Changes in ORC Bound to Origin DNA Revealed by Cryo-Electron Microscopy.
Structure Mar 7;20(3):534-44. – **IF 6.3**
19. Chabes A, **Speck C**, Johansson E (2011)
A top-down view on DNA replication and recombination from 9,000 feet above sea level.
Genome Biology: Biology for the post-genomic era 27 Apr – **IF 9.0 – review**
18. Evrin C, Clarke P, Zech J, Lurz R, Sun J, Uhle S, Li H, Stillman B, **Speck C (2009)**
A double-hexameric MCM2-7 complex is loaded onto origin DNA during licensing of eukaryotic DNA replication.
Proc Natl Acad Sci U S A. Dec 1;106(48):20240-5 – **IF 10.2**
- F1000 - rated exceptional**
F1000Prime Recommendations, Dissents and Comments for [Evrin C et al., Proc Natl Acad Sci USA 2009, 106(48):20240-5]. In F1000Prime, 22 May 2013; F1000Prime.com/1263974
- *In this publication we reconstituted helicase loading with purified proteins, which identified that the eukaryotic replicative helicase assembles into a double-hexamer upon loading onto DNA. This work had major implications for helicase loading, helicase activation and DNA synthesis.*
17. Chen Z, **Speck C***, Wendel P, Tang C, Stillman B, Li H (2008)
The architecture of the DNA replication origin recognition complex in *Saccharomyces cerevisiae*.
Proc Natl Acad Sci U S A. Jul 29;105(30):10326-31. – **IF 10.2**
*shared first author

16. **Speck C, Stillman B (2007)**
Cdc6 ATPase activity regulates ORC-Cdc6 stability and the selection of specific DNA sequences as origins of DNA replication.
J Biol Chem. Apr 20;282(16):11705-14. – **IF 4.8**
15. Majka J, **Speck C (2006)**
Analysis of protein — DNA interactions using surface plasmon resonance.
Adv Biochem Eng Biotechnol. 104:13-36. – **IF 4.3 Methods**
14. **Speck C, Chen Z, Li H, Stillman B (2005)**
ATPase-dependent cooperative binding of ORC and Cdc6 to origin DNA.
Nature Structural & Molecular Biology Nov 12, 965 - 971 – **IF 12.7**
**Using purified proteins we uncovered an ATP-hydrolysis dependent mechanism of sequence specific ORC-Cdc6 complex formation on origin DNA and identified the structure of this important complex.*
13. de la Hoz AB, Pratto F, Misselwitz R, **Speck C, Weihofen W, Welfle K, Saenger W, Welfle H, Alonso JC (2004)**
Recognition of DNA by omega protein from the broad-host range Streptococcus pyogenes plasmid pSM19035: analysis of binding to operator DNA with one to four heptad repeats.
Nucleic Acids Res. Jun 09;32(10):3136-47. **IF 8.0**
12. Berenstein D, Olesen K, **Speck C, Skovgaard O (2002)**
Genetic Organization of the Vibrio harveyi dnaA Gene Region and Analysis of the Function of the V. harveyi DnaA Protein in Escherichia coli.
J Bacteriol. May;184(9):2533-8. – **IF 3.8**
11. Pieper U, Groll DH, Wunsch S, Gast FU, **Speck C, Mucke N, Pingoud A (2002)**
The GTP-Dependent Restriction Enzyme McrBC from Escherichia coli Forms High-Molecular Mass Complexes with DNA and Produces a Cleavage Pattern with a Characteristic 10-Base Pair Repeat.
Biochemistry Apr 23;41(16):5245-5254. – **IF 3.4**
10. **Speck C, Messer W (2001)**
Mechanism of origin unwinding: sequential binding of DnaA to double- and single-stranded DNA.
EMBO J. Mar 15;20(6):1469-76. – **IF 12.5**
9. Messer W, Blaesing F, Jakimowicz D, Krause M, Majka J, Nardmann J, Schaper S, Seitz H, **Speck C, Weigel C, Wegrzyn G, Welzeck M, Zakrzewska-Czerwinska J (2001)**
Bacterial replication initiator DnaA. Rules for DnaA binding and roles of DnaA in origin unwinding and helicase loading.
Biochimie. Jan;83(1):5-12. – **IF 3.0**
8. Skarstad K, Lueder G, Lurz R, **Speck C, Messer W (2000)**
The Escherichia coli SeqA protein binds specifically and co-operatively to two sites in hemimethylated and fully methylated oriC.
Mol Microbiol. Jun; 36(6):1319-26 – **IF 5.0**
7. Schaper S, Nardmann J, Lüder G, Lurz R, **Speck C** and Walter Messer (2000)
Identification of the chromosomal replication origin from Thermus thermophilus and its interaction with the replication initiator DnaA.
J Mol Biol. Jun 9; 299(3):655-65 – **IF 4.0**

6. **Speck C**, Weigel C, Messer W (1999)
ATP- and ADP-DnaA protein, a molecular switch in gene regulation.
EMBO Nov 1;18(21):6169-76 – **IF 14.0**
5. Koehler M, **Speck C**, Christiansen M, Bischoff FR, Prehn S, Haller H, Görlich D, and Hartmann E (1999)
Evidence for distinct substrate specificities of importin α -family members in nuclear protein import.
Molecular and Cellular Biology Nov;19(11):7782-91 – **IF 5.5**
4. Messer W, Blaesing F, Majka J, Nardmann J, Schaper S, Schmidt A, Seitz H, **Speck C**, Tüngler D, Wegrzyn G, Weigel C, Welzeck M, and Zakrzewska-Czerwinska J (1999)
Functional domains of DnaA proteins.
Biochimie Aug-Sep; 81(8-9):819-25 – **IF 3.0 Review**
3. Szalewska-Palasz A, Weigel C, **Speck C**, Srutkowska S, Konopa G, Lurz R, Marszalek J, Taylor K, Messer W, Wegrzyn G. (1998)
Interaction of the Escherichia coli DnaA protein with bacteriophage lambda DNA.
Mol Gen Genet. Oct; 259(6):679-88. – **IF 2.6**
2. Jakimowicz D, Majka J, Messer W, **Speck C**, Fernandez M, Martin MC, Sanchez J, Schauwecker F, Keller U, Schrepf H, Zakrzewska-Czerwinska J. (1998)
Structural elements of the Streptomyces oriC region and their interactions with the DnaA protein.
Microbiology. May; 144 (Pt 5):1281-90. – **IF 3.0**
1. **Speck C**, Weigel C, Messer W (1997)
From footprint to toeprint: a close-up of the DnaA box, the binding site for the bacterial initiator protein DnaA.
Nucleic Acids Res. Aug 15; 25(16):3242-7 - **IF 9.1**

XVI. Presentations:

2019

Yuan Y, Schneider S, Bai L, Riera A, Stillman B, Li H, **Speck C**
Structural and functional analysis of eukaryotic DNA replication
Invited Speaker
Next Generation Biophysics Symposium
MRC-LMB, Cambridge, UK

Fernandez N, Aramayo R, Bartke T, **Speck C**
Chromatin – from structure to function
Invited Seminar
London Joint School (MRC-LMS / MDC Berlin) – Epigenetics in Single Cell
MRC-LMS, London, UK

2018

Barbon M, Riera A, Noguchi Y, Schneider S, Li H, **Speck C**
Key mechanism in the loading and activation of the replicative helicase MCM2-7
Invited Seminar
Dundee University, Dundee, UK

Barbon M, Riera A, Noguchi Y, Schneider S, Rappsilber J, Li H, **Speck C**
Structural basis of replicative helicase recruitment by ORC, Cdc6 and Cdt1
EMBO/EMBL Symposium: DNA Replication: From Basic Biology to Disease – **talk**
Heidelberg, Germany

2017

Riera A, Yuan Z, Bai L, Nandi S, Spanos C, Zhuo C, Barbon M, Rappsilber J, Stillman B, Li H, **Speck C**
Structural basis of replicative helicase recruitment by ORC, Cdc6 and Cdt1
Cold Spring Harbor - Eukaryotic DNA replication & Genome Maintenance meeting – **talk**
Cold Spring Harbor, NY, USA

2016

Riera A, Sun J, Barbon M, Tognetti S, Herrera C, Stillman B, Li H, **Speck C**
Key mechanism in the loading and activation of the replicative helicase MCM2-7
Invited Seminar
Institute of Cancer Research London, UK

Session chair on “DNA replication and recombination: Novel aspects”.
Key mechanism in the loading and activation of the replicative helicase MCM2-7
Riera A, Sun J, Tognetti S, Herrera C, Stillman B, Li H, **Speck C**
41st FEBS congress – **Invited speaker and Chair**
Kusadasi / Ephesus, Turkey

Riera A, Barbon M, Fernandez N, **Speck C**
Genome Stability, Gene Regulation & Structural Biology
Invited Seminar
Johannes Gutenberg Universität Mainz, Germany

2015

Riera A, Sun J, Tognetti S, Herrera C, Stillman B, Li H, **Speck C**
Mechanism of DNA replication
Cold Spring Harbor DNA replication meeting – **Invited speaker and Chair**
Cold Spring Harbor, NY, USA

Riera A, Sun J, Herrera C, Barbon M, Li H, **Speck C**
Key mechanism in helicase loading and activation
Invited Seminar
German Cancer Research Center (DKFZ), Heidelberg, Germany

Riera A, Sun J, Herrera C, Barbon M, Li H, **Speck C**
Key mechanism in helicase loading and activation
Invited Seminar
Sincrotrone Trieste SCpA, Italy

Riera A, Sun J, Tognetti S, Li H, **Speck C**
Key mechanism in helicase loading and activation
Invited Seminar
University of Geneva, Switzerland

Riera A, Sun J, Tognetti S, Li H, **Speck C**
Molecular mechanism in the duplication of genetic and epigenetic information
Invited Seminar
University of Jena, Germany

2014

Samel S, Fernández-Cid A, Riera A, Sun J, Evrin C, Winkler C, Tognetti S, Herrera C, Gardenal E, Kawakami H, Stillman B, Li H, **Speck C**
Mechanism of DNA replication
3R conference – **Invited speaker**
Gotemba, Japan

Samel S, Fernández-Cid A, Riera A, Sun J, Evrin C, Winkler C, Tognetti S, Herrera C, Gardenal E, Kawakami H, Stillman B, Li H, **Speck C**
Structure and loading mechanism of the replicative helicase
Invited Seminar
University of Oxford, UK

Samel S, Fernández-Cid A, Riera A, Sun J, Evrin C, Winkler C, Tognetti S, Herrera C, Gardenal E, Kawakami H, Stillman B, Li H, **Speck C**
Structure and loading mechanism of the replicative helicase
Invited Seminar
Warwick University, UK

Riera A, Tognetti S, Sun J, Fernandez Cid A, Herrera C, Samel S, Li H and **Speck C**
Key steps in the loading and activation of the replicative helicase MCM2-7
Wellcome Trust Conference Chromatin: From nucleosomes to chromosomes – **talk**
Cambridge, UK

Samel S, Fernández-Cid A, Riera A, Sun J, Evrin C, Winkler C, Tognetti S, Herrera C, Gardenal E, Kawakami H, Stillman B, Li H, **Speck C**
Structure and loading mechanism of the replicative helicase
Invited Seminar
CNIO Madrid, Spain

Samel S, Fernández-Cid A, Riera A, Sun J, Evrin C, Winkler C, Tognetti S, Herrera C, Gardenal E, Kawakami H, Stillman B, Li H, **Speck C**
One at a time – The assembly mechanism of the eukaryotic helicase
Invited Seminar
Birmingham University, UK

2013

Samel S, Fernández-Cid A, Riera A, Sun J, Evrin C, Winkler C, Tognetti S, Herrera C, Gardenal E, Kawakami H, Stillman B, Li H, **Speck C**
Mechanism of DNA replication
Invited Seminar
Sussex University, UK

Samel S, Fernández-Cid A, Riera A, Sun J, Evrin C, Winkler C, Tognetti S, Herrera C, Gardenal E, Kawakami H, Stillman B, Li H, **Speck C**
One at a time – The assembly mechanism of the eukaryotic helicase
Invited Seminar
IMB Mainz, Germany

Samel S, Fernández-Cid A, Riera A, Sun J, Evrin C, Winkler C, Tognetti S, Herrera C, Gardenal E, Kawakami H, Stillman B, Li H, **Speck C**
 Biochemical dissection of the MCM2-7 loading reaction
 CSHL DNA Replication meeting - **talk**
 Cold Spring Harbor, NY, USA

Fernández-Cid A, Riera A, Tognetti S, Herrera MC, Samel S, Evrin C, Winkler C, Gardenal E, Uhle S, **Speck C**
 The replicative helicase MCM2-7 is loaded in a multi-step reaction onto DNA - a structural and functional analysis of the loading reaction
Invited Seminar
 Munich, Germany

2012

Evrin C, Sun J, Zech J, Herrera C, Clarke P, Samel S, Stillman B, Lurz R, Li H, **Speck C**
 Structure and mechanism in MCM2-7 loading during licensing of eukaryotic DNA replication
Invited Seminar
 Napoli, Italy

2011

Evrin C, Sun J, Zech J, Herrera C, Clarke P, Samel S, Stillman B, Lurz R, Li H, **Speck C**
 Structure and mechanism in MCM2-7 loading during licensing of eukaryotic DNA replication
 CSHL DNA Replication meeting - **talk**
 Cold Spring Harbor, NY, USA

Evrin C, Zech J, Clarke P, Li H and Lurz R, **Speck C**
 Stepwise assembly of a double-hexameric MCM2-7 complex during licensing of eukaryotic DNA replication
 Chromatin, Replication and Chromosomal Stability, Abcam - **poster**
 Stockholm, Sweden

Evrin C, Zech J, Clarke P, Li H and Lurz R, **Speck C**
 Stepwise assembly of a double-hexameric MCM2-7 complex during licensing of eukaryotic DNA replication
 Keystone: DNA Replication and Recombination symposium - **talk**
 Keystone, CO, USA

2010

Evrin C, Clarke P, Zech J, Lurz R, Li H, **Speck C**
 Stepwise Assembly of a double-hexameric MCM2-7 Complex during licensing of eukaryotic DNA Replication
 DGDR meeting – Repair meets Replication – **invited speaker**
 Jena, Germany

Evrin C, Clarke P, Zech J, Lurz R, Li H, **Speck C**
 Stepwise Assembly of a double-hexameric MCM2-7 Complex during licensing of eukaryotic DNA Replication
 EMBO Replication/Repair & Segregation of Chromosomes – **Invited Speaker**
 Freiburg, Germany

Evrin C, Clarke P, Zech J, Lurz R, Li H, **Speck C**
Stepwise Assembly of a double-hexameric MCM2-7 Complex during licensing of eukaryotic DNA
Replication
CSHL Cell Cycle meeting - **talk**
Cold Spring Harbor, NY, USA

2009

Evrin C, Clarke P, Zech J, Lurz R, Li H, Stillman B, **Speck C**
Pre-RC formation promotes structural changes in MCM2-7
CSHL DNA Replication meeting - **talk**
2009 Cold Spring Harbor, NY, USA

Evrin C, Clarke P, Zech J, Lurz R, Li H, Stillman B, **Speck C**
Initiation of DNA replication
Invited Seminar
Brookhaven National Laboratory, NY, USA

Evrin C, Clarke P, Zech J, Lurz R, Li H, Stillman B, **Speck C**
Initiation of DNA replication
Invited Seminar
University of York, UK

2007

Chen Z, **Speck C**, Wendel P, Stillman B, Li H
The Architecture of the DNA Replication Origin Recognition Complex in *S. cerevisiae*
CSHL DNA Replication meeting - **talk**
2007 Cold Spring Harbor, NY, USA

Speck C, Stillman B
Initiation of DNA replication – Assembly of a molecular machine depends on origin DNA
Invited Seminar
2007 Umea University, Sweden

2006

Speck C, Stillman B
Cdc6 and specific origin sequences activate the ATPase of the ORC-Cdc6 complex
CSHL Cell Cycle meeting - **talk**
2006 Cold Spring Harbor, NY, USA