

Presentations by ESRs at International and Local Conferences:

The ESRs have given a total of 72 talks (T) or presented posters (P) at International and Local Conferences. They have been invited to present research seminars in different universities on 15 occasions. Posters and abstracts are available on the COMREC website. The conferences and titles of the presentations are shown below. In instances where 2 or more ESRs presented at the same conference these are grouped together.

International Conferences:

1. EMBO Meiosis Meeting, Oxford, UK (2015) a) Martinez-Garcia et al. Chromosome axis, synapsis and coordination of meiotic recombination in relation to crop breeding efficiency. (P); b) Singh et al. Meiotic crossing-over in the absence of RAD51 activity. (P); c) Verras et al. RAD51, DMC1, and synapsis: a complex triumvirate in plant meiosis. (P); d) Pradillo et al. Histone H2AX phosphorylation modulates the choice of DSB processing pathway during plant meiosis. (P); e) Whitbread et al. Modifying meiotic recombination in tomato. (P); f) Chouaref et al., Defining recombination hotspots in tomato. (P); g) Demirci et al. Analysing meiotic recombination hotspots in the tomato genome. (P)
2. International Symposium "The biology of meiosis: implications for fertility and genetic disorders". Ramón Areces Foundation. Salamanca, Spain (2015) a) Martinez-Garcia et al. Chromosome axis organisation and coordination of meiotic recombination in Arabidopsis and Brassica. (P); b) Parra et al. Arabidopsis meiosis at 4x level: what happens when the chromosome number is doubled. (P); c) Parra et al. Arabidopsis meiosis at 4x level: what happens when the chromosome number is doubled in mutants with reduced chiasma frequency. (P)
3. PhDay @CNIC: Science outside the bench. Madrid, Spain (2015) Martinez-Garcia et al. Chromosome axis organization and coordination of meiotic recombination in Arabidopsis and Brassica. (P)
4. DNA repair Meeting in Szeged, Hungary (2015) Sims et al. Generating an artificial cold spot for meiotic recombination. (P)
5. Dutch Chromatin meeting, Nijmegen, Netherlands (2015) Chouaref et al. Genome-wide distribution of the meiotic recombination hotspots in tomato. (P)
6. NWO-ALW meeting 'Experimental Plant Sciences' Lunteren, Netherlands. (2015) Demirci et al. Analysing meiotic recombination hotspots in the tomato genome. (P)
7. The first Bioinformatics & Systems Biology conference (BioSB 2015), Lunteren, Netherlands. (2015) Demirci et al. Analysing meiotic recombination hotspots in the tomato genome. (P)
8. Gordon Research Seminar. Meiosis, New Hampshire, USA (2016) Martinez-Garcia et al. Chromosome structure and post –translational modifications of axis proteins directly affect the meiotic outcome in *Arabidopsis thaliana*. (P)

9. Gordon Research Conference. Meiosis. New Hampshire, USA (2016). a) Martinez-Garcia et al. Crossing through the nuclear envelope in *Arabidopsis* meiocytes: a role for the nuclear pore complex and nuclear plant lamina? (P); b) Sims et al. Control of meiotic recombination at the rDNA. (P);
10. Spanish Meionet Meeting Poblet, Spain (2016) a) Martinez-Garcia et al. Topoisomerase II in plants: a key player in cell cycle, condensation and DNA repair in both mitosis and meiosis. (T); b) Zolkowski et al. The role of the SMC5/6 complex in *Arabidopsis thaliana*. (T); c) Parra et al. Induced autotetraploidy in recombination defective meiotic mutants: is chromosome copy number relevant? (T);
11. British Meiosis London, UK (2016). a) Martinez-Garcia et al. (2nd Best talk of the meeting). Topoisomerase II in plants: a key player in cell cycle, condensation and DNA repair in both mitosis and meiosis. (T); b) Arrieta et al. Influence of temperature on crossover formation in barley (P)
12. Plant Genome Stability and Change. Kanagawa, Japan (2016) Singh et al. Meiotic crossing-over in the absence of RAD51 activity. (P).
13. International Barley Genetics Symposium (IBGS), Minnesota, USA (2016) Arrieta et al. Influence of temperature on Crossover formation in barley.
14. 21th International Chromosome Conference, Foz do Iguacu, Brazil (2016) Zolkowski et al. The role of the SMC5/6 Complex in *Arabidopsis thaliana*. (P)
15. Tri-National *Arabidopsis* Meeting, Vienna, Austria (2016) Sims et al. Control of meiotic recombination at the rDNA. (P)
16. Central European DNA repair meeting, Zagreb, Croatia (2016) Sims et al. Control of meiotic recombination at the rDNA. (T)
17. Experimental plant science meeting, Lunteren, Netherlands (2016) Chouaref et al. Defining recombination hotspots in tomato. (P)
18. Paris-Ile de France meiosis meeting, Versailles, France, (2016) Chouaref et al. Defining recombination landscape in tomato. (P)
19. Dutch Chromatin meeting, Leiden, Netherlands. (2016) Chouaref et al. Genome-wide distribution of the meiotic recombination hotspots in tomato. (P)
20. NWO-ALW meeting 'Experimental Plant Sciences' Lunteren, Netherlands. (2016) Demirci et al. High resolution meiotic recombination profiles in recombinant inbred lines of tomato. (P)
21. The Second Bioinformatics & Systems Biology conference (BioSB 2016), Lunteren, Netherlands. (2016) Demirci et al. High resolution meiotic recombination profiles in recombinant inbred lines of tomato. (P)

22. XXV Plant and Animal Genome conference in San Diego, USA (2017) a) Martinez-Garcia et al. Topoisomerase II is required for programmed chromosome reorganization during meiosis and mitosis in plants. (T); b) Singh et al. DMC1, RAD51 and meiotic recombination in *Arabidopsis*. (T)
23. British Meiosis Meeting. Dundee, UK (2017) a) Martinez-Garcia et al. How meiotic interlocks are solved? New insights into the different pathways. (P); b) Arrieta et al. Influence of temperature on Crossover formation in barley. British Meiosis.
24. Spanish Meionet Meeting. Miraflores de la Sierra, Spain. (2017) a) Martinez-Garcia et al. Best Talk of the meeting. Breakage or movement? New insights into meiotic interlock resolution. (T); b) Parra et al. Changes in meiotic recombination during the diploidisation process in *Arabidopsis thaliana*. (T)
25. EMBO Conference on Meiosis, Hvar, Croatia. (2017) a) Martinez-Garcia et al. DNA repair, chromatin morphogenesis and interlock resolution are controlled by Topoisomerase II during meiosis. (P). b) Singh et al. Meiotic crossing-over in the absence of RAD51 activity. (P); c) Arrieta et al. Influence of temperature on crossover formation in barley. (P); d) Whitbread et al. Modifying meiotic recombination in tomato. (P); e) Chouaref et al., Defining recombination hotspots in tomato. (P); f) Demirci et al. Developing prediction models for meiotic crossovers in plant species. (P)
26. Experimental Plant Science, Lunteren, Netherlands (2017) Singh et al. Defining meiotic recombination hot spots in tomato. (P)
27. Olomouc workshop, Olomouc; Czech Republic (2017) Zelkowski et al. The role of the NSE4a subunit of the SMC5/6 complex in *Arabidopsis thaliana*. (T)
28. NWO meeting 'Experimental Plant Sciences' Lunteren, Netherlands (2017) Demirci et al. Developing prediction models for meiotic crossovers in plant species. (P)
29. The third Bioinformatics & Systems Biology conference (BioSB 2017), Lunteren, Netherlands (2017) Demirci et al. Developing prediction models for meiotic crossovers in plant species. (P)
30. XXVI Plant and Animal Genome conference in San Diego, USA. (2018). Martinez-Garcia et al. A combinatorial mechanism for the removal interlocks in meiotic chromosomes. (T)

Local Talks/Posters:

1. Marie Curie Poster and Lab Tour Day. University of Birmingham, UK (2014) Martinez-Garcia et al. The COMREC network and Food Security. (T)
2. DK Chromosome Dynamics Retreat (2014) Sims et al., Generating an artificial cold spot for meiotic recombination. (T)
3. Bioscience business unit, Wageningen, Netherlands. (2014) Demirci et al. Bioinformatic analyses of meiotic recombination in tomato hybrids and related species. (T)

4. Biologisches Kolloquium. KIT, Germany (2015) Whitbread et al. Modifying meiotic recombination in tomato.
5. SFB seminar Series, Biocenter, Vienna, Austria (2015) Sims et al. Control of meiotic recombination at the rDNA. (T)
6. Swammerdam Institute for Life sciences seminar. University of Amsterdam, Netherlands (2015) Chouaref et al. Genome-wide identification of regulatory sequences with CHIP-seq in plant. (T)
7. TKI - Horticulture "Narrowing the gap between genomics and precision breeding" project mid-term meeting. Wageningen, Netherlands (2015) Demirci et al. Meiotic recombination profiles of tomato RILs. (T)
8. Bioscience business unit, Wageningen, Netherlands (2015) Demirci et al. Control of meiotic recombination of tomato accessions. (T)
9. Bioscience Graduate School Symposium,. School of Biosciences. University of Birmingham, UK (2016) Martinez-Garcia et al. Chromosome structure and post -translational modifications of axis proteins and the meiotic outcome in *Arabidopsis thaliana*. (T)
10. DK Chromosome Dynamics Retreat (2016) Sims et al., Generating an artificial cold spot for meiotic recombination. (T)
11. Joint Plant Seminar at the MFPL, Vienna , Austria (2016) Sims et al. Meiotic rDNA repair in the nucleolus employs a NHEJ mechanism. (T)
12. James Hutton Institute's postgraduate students event, Birnam, UK (2016) Arrieta et al. Influence of temperature on Crossover formation in barley.
13. Plant Science Student Conference (PSSC) IPK Gatersleben, Germany (2016) Zelkowski et al. The role of SMC5/6 complex in *Arabidopsis thaliana*. (T)
14. Institute Day IPK Gatersleben, Germany (2016) . Zelkowski et al. The role of SMC5/6 complex in *Arabidopsis thaliana*. (P)
15. Green Life Science Research Day, Amsterdam, Netherlands (2016) Chouaref et al. Hotspot of meiotic recombination in plants. (T)
16. Bioscience business unit, Wageningen, Netherlands (2016) Demirci et al. Crossover profiles of tomato RILs. (T)
17. Experimental Plant Sciences Graduate School Theme 4: Genome Biology Symposium. Wageningen, Netherlands (2016) Demirci et al. Developing a prediction model for meiotic crossovers in tomato.
18. TKI - Horticulture "Narrowing the gap between genomics and precision breeding" project final meeting. Wageningen, Netherlands (2017) Demirci et al. Analysing meiotic recombination in plants. (T)

19. Bioscience business unit, Wageningen, Netherlands. (2017) Dermirci et al. Predicting meiotic crossovers in plant species. (T)
20. Scotia Agricultural Club, Annual Student prize for poster Moredun Research Institute, Edinburgh, UK. (2017) Arrieta et al Effect of temperature on recombination in Barley: Using temperature to change recombination patterns in barley. (P)
21. Joint Plant Seminar at the MFPL, Vienna, Austria (2017) Sims et al. Meiotic rDNA repair in the nucleolus employs a NHEJ mechanism. (T)
22. Swammerdam Institute for Life Science Research Day, University of Amsterdam. Netherlands. (2017) Chouref et al. Definition of the meiotic recombination landscape in tomato. (P)

Invited seminars presented by ESRs:

1. University of Hamburg, Germany. (2015) Whitbread et al. Modifying meiotic recombination in tomato.
2. IPK Gatersleben, Germany (2016) Martinez-Garcia et al. Chromosome axis organisation in relation to the coordination of meiotic recombination.
3. University Blasé Pascal, Clermont -Ferrand, France. (2016) Martinez-Garcia et al. Chromosome axis organisation in relation to the coordination of meiotic recombination.
4. University of Amsterdam, Netherlands. (2016) Martinez-Garcia et al. Chromosome axis organisation in relation to the coordination of meiotic recombination.
5. James Hutton Institute, Dundee, UK. (2016) Martinez-Garcia et al. Chromosome axis organisation in relation to the coordination of meiotic recombination.
6. DeCOP (Delineating the crossover control networks in plants). ERA-CAPS Consortium Meeting. Vienna, Austria (2016) Martinez-Garcia et al. Topoisomerase II in plants: a key player in cell cycle, condensation and DNA repair in both mitosis and meiosis.
7. The Students and Postdocs Meiosis workshop” organized by the CNRS and the University of Montpellier, Montpellier, France (2016) Singh et al. DMC1, RAD51 and meiotic recombination in Arabidopsis.
8. KWS, Thriplow, UK (2016) Arrieta et al. Influence of temperature on crossover formation in barley.
9. Sri Agrasen Kanya Post Graduate College, Varanasi, India (2016) Singhe et al. “Food Security”
10. University of Chapel Hill North Carolina, USA (2016) Sims et al. The role of FANCD2 in Arabidopsis meiosis.
11. University of Amsterdam, Netherlands. (2016) Sims et al. Control of meiotic recombination at the rDNA.

12. Max F. Perutz Laboratory, Vienna, Austria. (2016) Chouaref et al. Defining recombination landscape in tomato.
13. Max F. Perutz Laboratory, Vienna, Austria. (2016) Dermirci et al. Meiotic recombination in tomato inbred lines.
14. University of Amsterdam, Netherlands (2017) Demirci et al. Analysing meiotic recombination in tomato.
15. DeCOP-ERA-CAPS Consortium Meeting. Cambridge, UK (2017) Martinez-Garcia et al. Delineating the crossover control networks in plants). ERA-CAPS Consortium Meeting. Breakage or movement? New insights into meiotic interlock resolution.

COMREC ESR outreach activities:

There have been 17 main outreach activities and events conducted by the COMREC ESRs.

1. ESR 2 presented his involvement in the COMREC project at the Trieste NEXT (European Science Fair held in Trieste, Italy in September 2014).
2. A “Meet the Scientist” event was held on 19th February 2015 at the Thinktank Birmingham Science Museum, organized and hosted by all the COMREC ESRs. This was a highly successful, hands-on science based activity for school children, parents and the general public with several hundred attendees. Activities included exhibits, poster displays and demonstrations such as DNA isolation, gel electrophoresis, visualizing chromosomes using fluorescence microscopy. A questionnaire was conducted before and after members of the public participated. This revealed that they gained new knowledge and a more positive opinion of modern plant science as a result of participating.
3. The ESRs designed and produced a School/Public information leaflet on COMREC “Food for the future” <https://drive.google.com/file/d/0B0habMbzcej7M0pPVFdIcjZTLTQ/view?usp=sharing> This has been distributed at outreach events, university open days and school visits
4. Meet the Experts: Brownie and Guide Science Investigator Day: Women Plant Scientists Now and Then. Involving ESR 7 at Thinktank Birmingham Science Museum, April 2015).
5. ESRs 5, 8, 11 and 12 participated in Science Night – organizing a presentation on Food Security, University of Hamburg, Nov 2015.
6. ESRs 5, 7 and 12 presented a poster at Expo, Milano Oct 2015 describing the aims and activities of the COMREC network.
7. ESR 6 participated in La lumière au service des sciences de la vie, organized in Clermont Ferrand, Oct 2015.
8. A Lesson on COMREC and genetically modified organisms was presented by ESR 2 at the Liceo Scientifico Galileo Galilei, Trieste, Italy. May 2015

9. ESR 7 organized 3 Workshops of 'Plant Science' in Open Days of the University of Birmingham (2015/16/17). "Are you nuts or going bananas: how plant reproduction sustains us".
10. ESR 6 Gave a presentation on Food Security to students and staff at the Sri Agrasen Kanya Post Graduate College, Varanasi, India in Feb. 2016.
11. ESR 9 participated in the Plant Power day organized at the Botanical garden, Dundee, May 2016.
12. ESR 2 presented the work of the COMREC network at the Long Night of Research held in Vienna, April 2016.
13. ESR 9 explained his research at the Fascination of plants day, Botanical Garden, Dundee, May 2017.
14. ESR 4 participated in two ICT projects at the Universidad Complutense de Madrid. This involved making a video for dissemination describing his research. The aim of this was to explain advanced science techniques in a way that can be understood by high school students and to make science more attractive. The video created in the one of the ICT projects can be seen in the following link:
<https://www.youtube.com/watch?v=oQVDvq6p6IQ&feature=youtu.be>
15. A role-playing for activity for primary school children was organized by ESR 7 in Birmingham (2016): "Farmers for a day". Teaching them how to address and answer a scientific problem through games.
16. ESR 7 participated in two National Projects for Innovation and Improvement of Teaching quality. Use of ITC as an outreach tool for science, methodology and research social impact in STEM disciplines. Biology, Complutense University Madrid.
17. ESR 7 created an online community around #PlantMeiosis and #FoodSecurity that has access to different resources by following here on twitter. Online resources: Article compilation about Food Security, Infographic, Youtube video, Facebook video for parents, short stories.