3R+3C+D Symposium 2026

Day 1 | Sunday, 8 November

All talk durations include questions and answers.

12:00-14:00	**Reception**	
14:00-14:10	**Opening Remarks**	
	Hiroyoshi Endo	
	Intractable Diseases (Nanbyo) Research Foundation	

Session 01 14:10-15:40 | Nucleotide Excision Repair

Chair: Tomoo Ogi

14:10-14:35 25 min	**Kaoru Sugasawa**	Molecular basis underlying efficient DNA damage recognition in mammalian nucleotide excision repair
14:35-15:00 25 min	**Wei Yang**	Pre-incision structures reveal principles of DNA nucleotide excision repair
15:00-15:15 15 min	**Chikako Nishigori**	Present status of Japanese patients with XP and pre-clinical and clinical study for therapy for XP
15:15-15:40 25 min	**Jurgen Marteijn**	Cellular response to DNA damage-induced transcription stress

15:40-15:55 **Coffee Break**

Session 02 15:55-17:30 | Genome Maintenance and Disease

Chairs: Ryotaro Kawasumi, Bunsyo Shiotani

15:55-16:20 25 min	**Ketan J. Patel**	Hematopoietic formaldehyde clearance suppresses DNA damage-induced premature ageing
16:20-16:45 25 min	**Ross Chapman**	Beyond Homologous Recombination: attributing new functionality to BRCA1 in tumour suppression
16:45-17:00 15 min	**Junko Murai**	Twenty Years After the Discovery of Synthetic Lethality: Revisiting PARP Inhibitor Mechanisms with the PARP1-Selective Inhibitor Saruparib
17:00-17:15 15 min	**Noriko Miyake**	Severe syndromic growth disorders caused by biallelic TEDC1 variants
17:15-17:30 15 min	**Shinichiro Nakada**	Genome Excision without Programmed Double-Strand Breaks

17:30-17:50 **Coffee Break**

Session 03 17:50-18:30 | Plenary Lecture

Chair: Chikahide Masutani

17:50-18:30 40 min	**Richard D. Wood**	Coordination of Pol θ domain function and regulation of DNA end-joining

18:40-20:30 **Welcome Reception**

3R+3C+D Symposium 2026

Day 2 | Monday, 9 November | Morning

All talk durations include questions and answers.

Session 04 08:45-10:05 | DNA Damage Responses

Chairs: Huasong Lu, Takaaki Yasuhara

08:45-09:00 15 min	**Isao Kuraoka**	DNA Damage by Scabin Toxin: Targeted Modification that Blocks DNA Synthesis
09:00-09:25 25 min	**Martijn Luijsterburg**	LEO1 remodels RNAPII to initiate transcription-coupled DNA repair
09:25-09:50 25 min	**Philippe Pasero**	Signaling Transcription-Replication Conflicts Beyond Cell Boundaries
09:50-10:05 15 min	**Makoto Hayashi**	Chromosome Fusion-Induced Mitotic Arrest in Mesenchymal Cells Is Driven by a Non-Canonical RAD51-Dependent Homologous Recombination Mechanism

10:05-10:25 **Coffee Break**

Session 05 10:25-11:45 | Replication and Nuclear Organization

Chairs: Anna Malkova, Kei-ichi Takata

10:25-10:50 25 min	**Anne Donaldson**	Molecular mechanisms controlling DNA replication timing
10:50-11:05 15 min	**Hisao Masai**	Regulation of replication timing and chromatin architecture by nuclear membrane tethering of Rif1
11:05-11:20 15 min	**Ichiro Hiratani**	Nuclear compartmentalization at the G1/S transition plays a key role in DNA replication control
11:20-11:45 25 min	**Chun-Long Chen**	Single-Cell Insights into DNA Replication Dynamics and Genome Instability

11:45-12:05 **Photo Shooting**

12:05-14:05 **Lunch**

3R+3C+D Symposium 2026

Day 2 | Monday, 9 November | Afternoon

All talk durations include questions and answers.

Session 06 14:05-15:00 | DNA Repair and Cancer Therapy

Chair: Michael Ashley Spies

14:05-14:30 25 min	**Benu Brata Das**	Arginine Methylation Regulates Topoisomerase 1cleavage complexes (Top1cc) Repair to Prevent Genomic Instability
14:30-14:45 15 min	**Kouji Hirota**	PARP1 Safeguards Nascent DNA from SMUG1-dependent Processing of 5-hmdU: Targeting Genome Maintenance Defects by Nucleoside Analogs Opens up a Novel Cancer Chemotherapy
14:45-15:00 15 min	**Hiroyuki Sasanuma**	PARP Trapping Drives G1 Apoptosis as a Pan-Cell-Cycle Vulnerability in BRCA2 Deficiency

15:00-15:15 **Coffee Break**

Session 07 15:15-16:20 | DNA Repair and Genome Stability

Chair: Peter Chi

15:15-15:40 25 min	**Susan M. Gasser**	Base oxidation and the conversion of nicks to double strand breaks: when BER goes bad
15:40-15:55 15 min	**Tatsuro Takahashi**	Replication fork responses to O6-methylguanine
15:55-16:20 25 min	**Petr Cejka**	Mechanism of trinucleotide repeat expansion by MutSβ-MutLβ-MutLγ

16:20-16:40 **Coffee Break**

Session 08 16:40-17:20 | Short Talks I

16:40-17:20	**08A** **International Conference Hall**	DNA Repair and Genome Surveillance Chairs: Cheng-Sheng Lee, Mariko Sasaki
16:40-17:20	**08B** **Room 2-3**	Replication Stress and Fork Protection Chairs: Kosuke Yamaguchi, Takeshi Yasuda
16:40-17:20	**08C** **Room 4-5**	DNA Repair and Transcription Chairs: Hsueh-Ping Chu, Arato Takedachi

Three parallel sessions. Speaker details: page 4.

17:30-19:30 **Poster Session**

17:30-18:30 Odd-numbered posters: presenters at their posters

18:30-19:30 Even-numbered posters: presenters at their posters

3R+3C+D Symposium 2026

Day 2 | Monday, 9 November 2026 | 16:40-17:20

Three parallel sessions. Each speaker has 10 minutes, including questions and answers.

16:20-16:40 Coffee Break

International Conference Hall

Session 08A | DNA Repair and Genome Surveillance

16:40-16:50 Chairs: Cheng-Sheng Lee, Mariko Sasaki

Felipe Cortés-Ledesma

Decoding DNA double-strand break repair using functional genomics

16:50-17:00

Ryotaro Nishi

PARP1-DHX9 axis regulates DNA double-strand break repair via DNA-RNA hybrid dynamics

17:00-17:10

Yohei Sugimoto

Tuning CRISPR-Cas9 activity enables efficient engineering of multicopy extrachromosomal DNA

17:10-17:20

Fumiko Esashi

Centromere-based surveillance governs quiescent cell fate.

Room 2-3

Session 08B | Replication Stress and Fork Protection

16:40-16:50 Chairs: Kosuke Yamaguchi, Takeshi Yasuda

Leonid Novokreshchenov

The Investigation of the Role of CHK1 in Replication and Tissue Homeostasis

16:50-17:00

Taichi Igarashi

PrimPol Toggled by ATR Modulates Fork Slowing and Repriming under Oncogenic KRAS-induced Replication Stress

17:00-17:10

Maria Spies

Modulation of the DNA replication fork reversal by the fork structure, ssDNA binding protein RPA and DNA repair protein RAD52

17:10-17:20

Denitsa Yaneva

Mechanistic basis of DNA lesion processing by FANCJ

Room 4-5

Session 08C | DNA Repair and Transcription

16:40-16:50 Chairs: Hsueh-Ping Chu, Arato Takedachi

Syota Matsumoto

Structural insights into UV-induced DNA repair machinery in nucleotide excision repair

16:50-17:00

Huasong Lu

Mechanisms of CSB Recruitment to Lesion-Stalled RNA Polymerase II

17:00-17:10

Marco Muzi-Falconi

RNA:DNA Hybrid Remodeling by Pol η Enables Bypass of Transcription-Replication Conflicts Under Replication Stress

17:10-17:20

Ken Takashima

Nucleolus dysfunction generates ribosomal DNA-derived RNA-DNA hybrid that prime innate immune response

17:30-19:30 Poster Session

Presenters at their posters: odd-numbered posters 17:30-18:30; even-numbered posters 18:30-19:30.

3R+3C+D Symposium 2026

Day 3 | Tuesday, 10 November | Morning

All talk durations include questions and answers.

Session 09 08:45-10:20 | DNA Replication

Chairs: Kyungjae Myung, Shogo Ozaki

08:45-09:10 25 min	**John Diffley**	How the DNA Damage Checkpoint Maintains Replication Fork Stability
09:10-09:25 15 min	**Hironori Kawakami**	Regulated ssDNA binding by budding yeast ORC for faithful replication origin selection
09:25-09:50 25 min	**Christian Speck**	Loading of the human MCM2-7 helicase is highly regulated to ensure complete genome replication.
09:50-10:05 15 min	**Yasunori Noguchi**	Molecular mechanism of human MCM2-7 double hexamer phosphorylation by DDK during DNA replication initiation
10:05-10:20 15 min	**Masato Kanemaki**	RECQL4 and MCM10 cooperatively and redundantly activate the replicative CMG helicase

10:20-10:40 **Coffee Break**

Session 10 10:40-11:45 | DNA Damage Tolerance

Chair: Marco Muzi-Falconi

10:40-11:05 25 min	**Helle D. Ulrich**	Regulation of replicative DNA damage bypass by the ubiquitin system
11:05-11:30 25 min	**Dana Branzei**	DNA damage tolerance pathway choice is coordinated by a Ctf4-centered replisome hub
11:30-11:45 15 min	**Yasukazu Daigaku**	Flexible and complementary usage of replicative and error-prone DNA polymerases in human genome replication

11:45-13:45 **Lunch**

3R+3C+D Symposium 2026

Day 3 | Tuesday, 10 November | Afternoon

All talk durations include questions and answers.

Session 11 13:45-15:15 | Chromatin and Replication

Chairs: Tomomi Tsubouchi, Sophie Polo

13:45-14:10 25 min	**Niels Mailand**	Histone biogenesis and genome maintenance
14:10-14:35 25 min	**Yuanliang Zhai**	Molecular mechanism of chromatin replication
14:35-15:00 25 min	**Constance Alabert**	Chromatin assembly at replication forks enables differentiation of human iPSCs
15:00-15:15 15 min	**Makoto Tachibana**	Dynamic regulation of H3K9 methylation drives mouse minor zygotic genome activation

15:15-15:35 **Coffee Break**

Session 12 15:35-16:30 | Chromosome Organization

Chair: Thomas Robert

15:35-16:00 25 min	**William Earnshaw**	Unexpected insights into condensin dynamics
16:00-16:15 15 min	**Yasuto Murayama**	Direct visualization of the chromosomal Smc5/6 complex bound to DNA
16:15-16:30 15 min	**Kei-ichiro Ishiguro**	Oocyte-specific OMC1 is required for maintaining REC8 cohesin during meiosis

16:30-16:50 **Coffee Break**

Session 13 16:50-17:30 | Short Talks II

16:50-17:30	**13A** **International Conference Hall**	DNA Repair and Recombination Chairs: Eric Coïc, Fumiko Esashi
16:50-17:30	**13B** **Room 2-3**	Chromatin Organization and Regulation Chairs: Syota Matsumoto, Ryotaro Nishi
16:50-17:30	**13C** **Room 4-5**	DNA Replication and Chromosome Organization Chairs: Tomoko Nishiyama, Yohei Sugimoto

Three parallel sessions. Speaker details: page 7.

17:40-19:40 **Poster Session**

17:40-18:40 Odd-numbered posters: presenters at their posters

18:40-19:40 Even-numbered posters: presenters at their posters

3R+3C+D Symposium 2026

Day 3 | Tuesday, 10 November 2026 | 16:50-17:30

Three parallel sessions. Each speaker has 10 minutes, including questions and answers.

16:30-16:50 Coffee Break

International Conference Hall

Session 13A | DNA Repair and Recombination

16:50-17:00 Chairs: Eric Coïc, Fumiko Esashi

James Haber

Replication Fork-Associated Checkpoint Mediator Mrc1/Claspin Acts in Mec1/ATR-independent, Tel1/ATM-dependent Double-Strand Break Repair

17:00-17:10

Keita Kameda

Mechanisms of double-strand break control in C. elegans meiosis

17:10-17:20

Neil Hunter

Essential roles of BRCA2 in spermatogenesis and oogenesis

17:20-17:30

Valerie Borde

Single molecule sequencing of DSB repair synthesis reveals hidden properties of homologous recombination

Room 2-3

Session 13B | Chromatin Organization and Regulation

16:50-17:00 Chairs: Syota Matsumoto, Ryotaro Nishi

Kiyoe Ura

Chromatin structure-dependent regulation of the histone H3K36 methyltransferase NSD2

17:00-17:10

Kosuke Yamaguchi

Regional DNA Methylation Vulnerability Governed by UHRF1 Localisation

17:10-17:20

Jonathan Humbert

3D organisation of the nascent genome

17:20-17:30

Shoin Tei

Dual Roles of Cohesin in Transcriptional Regulation

Room 4-5

Session 13C | DNA Replication and Chromosome Organization

16:50-17:00 Chairs: Tomoko Nishiyama, Yohei Sugimoto

Lucía Márquez-Thibaut

Alternative molecular architectures preserve a conserved mechanism of MCM ring closure in eukaryotes

17:00-17:10

Kimberly Quililan

Sister chromatid co-entrapment at the replication fork

17:10-17:20

Cheng-Sheng Lee

Cohesin-mediated loop extrusion facilitates homologous repair of DSBs

17:20-17:30

Haidao Zhang

Investigating Human SMC5/6 functions using super-resolution microscopy

17:40-19:40 Poster Session

Presenters at their posters: odd-numbered posters 17:40-18:40; even-numbered posters 18:40-19:40.

3R+3C+D Symposium 2026

Day 4 | Wednesday, 11 November

All talk durations include questions and answers.

Session 14 08:45-10:15 | Chromosome Stability

Chairs: Junjie Chen, Takashi Sutani

08:45-09:10 25 min	**Frank Uhlmann**	Why does a chromosome look like a chromosome?
09:10-09:35 25 min	**Madhusudhan Srinivasan**	DNA catenation is essential for Sister Chromatid Cohesion
09:35-09:50 15 min	**Takehiko Kobayashi**	SIRT6 Maintains rDNA Stability in Human Cells
09:50-10:15 25 min	**Jennifer L. Gerton**	Repetitive DNA and the evolution of the human karyotype

10:15-10:35 **Coffee Break**

Session 15 10:35-11:40 | DNA Replication and Repair

Chair: Maria Spies

10:35-10:50 15 min	**Tsutomu Katayama**	Mechanical principle underlying bidirectional replication: regulations for interdependent helicase translocation in E. coli oriC
10:50-11:15 25 min	**Huilin Li**	Evolutionary Solutions to DNA Sliding Clamp Loading onto Minimal DNA Gaps
11:15-11:40 25 min	**Michael M. Cox**	Rapid recombinational DNA repair of post-replication gaps in Escherichia coli

11:40-19:00 **Excursion**

19:00-21:00 **Banquet**

3R+3C+D Symposium 2026

Day 5 | Thursday, 12 November

All talk durations include questions and answers.

Session 16 08:40-10:10 | Meiotic Recombination

Chairs: Neil Hunter, Valerie Borde

08:40-09:05 25 min	**Bernard de Massy**	The formation of DNA double-strand breaks during meiosis: from in vivo to in vitro approaches
09:05-09:30 25 min	**Scott Keeney**	Making and repairing double-strand breaks in meiosis
09:30-09:55 25 min	**Matthew Neale**	Transcription directs Holliday junction branch migration
09:55-10:10 15 min	**Miki Shinohara**	DNA-mediated interaction between the Zip3 C-terminal domain and MutSγ regulates meiotic crossover in budding yeast

10:10-10:25 **Coffee Break**

Session 17 10:25-11:30 | Homologous Recombination

Chair: Felipe Cortés-Ledesma

10:25-10:50 25 min	**Pierre-Henri Gaillard**	SLX4's Balancing Act in Genome Stability
10:50-11:15 25 min	**Stephen West**	Repairing broken chromosomes: Mechanistic insights from AlphaFold and cryo-EM
11:15-11:30 15 min	**Akira Shinohara**	The molecular mechanism and regulation of RAD51/DMC1/RecA-mediated homology search and strand exchange

11:30-11:40 **Invitation to the Next 3R Meeting 2028**

Miki Shinohara

11:40-11:50 **Closing Remarks**

13:00-15:00 **Public Lecture**

Living with Rare Diseases

Learning from the UK Multidisciplinary Team

BENEX Nagasaki Brick Hall, Conference Hall

Doors open 12:30. Full programme and speakers: page 10.

Public Lecture

Living with Rare Diseases

Learning from the UK Multidisciplinary Team

Thursday, 12 November 2026 | 13:00-15:00 | Doors open 12:30

BENEX Nagasaki Brick Hall, Conference Hall
2-38 Morimachi, Nagasaki 852-8104

Free admission. Open to everyone. No registration required.
Japanese/English simultaneous interpretation.

Programme

13:00	Opening remarks
13:05	Rare genetic disease care in Japan
13:20	Rare genetic disease care in the UK
14:20	Questions and answers
14:30	Amy and Friends From the perspective of patients and families
14:45	Patient groups in Japan From the perspective of patients and families
14:55	Closing remarks

Speakers

Nagoya University

Seiji Mizuno	Clinical Geneticist

UK National CS/TTD Service, Guy's and St Thomas' NHS Foundation Trust

Adesoji Abiona	Consultant Pediatrician
Julia Kenny	Consultant Pediatric ID / Immunology
Mike Harrison	Consultant Pediatric Dentist
Phillipa Sellar	Nurse Practitioner
Paula Sullivan	Nurse Practitioner

Patient Groups

Amy and Friends UK CS / TTD patient group	Jayne Hughes (Founder); Meg Simpson (Family Support Manager)
Japan CS Network	Yukiko Sato
Japanese National Network of XP Family Associations	Toshihito Kimura
Rothmund-Thomson Syndrome Family Association, Japan	Yuko Yamaguchi