



9th WINTER RESEARCH CONFERENCE



DNA Damage: formation, repair, health consequences and
industrial issues



PROGRAM

Organized by the laboratory « Lésions des Acides
Nucléiques »; INAC/SCIB; UMR E3 CEA/UJF; CEA-
Grenoble, France



PROGRAM

Arrival: Sunday March 11 – Reception of the participants starting at 2 pm

6h30 pm: Opening of the Meeting – Wine Reception

7h30 pm: Diner

Scientific Program

	Monday March 12	Tuesday March 13	Wednesday March 14	Thursday March 15
8h30-10h30	<i>DNA Damage: Transcription, Replication and Mutagenesis (1)</i> Chair: W. Rachid	<i>Nanotoxicology</i> Chair: M. Carrière	<i>DNA Damage and Repair, Aging, Brain</i> Chair: S. Sauvaigo	<i>DNA Damage and Repair, Therapy, Biomarkers</i> Chair: P. Radicella
10h30-10h50	Coffee break			
10h50-12h30	<i>DNA Damage: Transcription, Replication and Mutagenesis (2)</i> Chair: D. Gasparutto	<i>Genotoxicology – Industrial Aspects</i> Chair: T. Douki	<i>DNA Damage and Repair, Disease</i> Chair: J. Breton	<i>Ionizing and UV Radiations: from the lesions to the cell response</i> Chair: M. Dutreix
12h30	Lunch			
17h00-19h30	<i>Chemistry, Biochemistry of DNA Damage (1)</i> Chair J.-L. Ravanat	<i>Chemistry, Biochemistry of DNA Damage (2)</i> Chair: J. Cadet	<i>Chemical, Biochemical Aspects of DNA Repair (1)</i> Chair: P. O'Neill	<i>Chemical, Biochemical Aspects of DNA Repair (2)</i> Chair: S. Loft
19h30	Diner			
Evening	Social Event	Poster Session	Social Event	Gala Diner

Departure: Friday March 16 after breakfast

Monday March 12

9h00 – 10h30: DNA Damage: Transcription, Replication and Mutagenesis (1)

9h00 **Philippe Becuwe** “The Damaged DNA Binding 2, a multifaceted protein in cellular functions: from its DNA repair activity to its role in gene transcription”

9h30 **Evelyne Sage** “Effect of UVA on DNA replication”

10h00 **Thanos Halazonetis** “DNA replication stress and cancer”

10h30 – 10h50: Coffee break

10h50 – 11h50: DNA Damage: Transcription, Replication and Mutagenesis (2)

10h50 **Robert Fuchs** “Control of spontaneous and induced mutagenesis by dNTP pool size”

11h20 **Thierry Nospikel** “Elevated mutagenesis in B lymphocytes and human ES cells: different mechanisms, same outcome”

12h30: Lunch

17h00 – 19h00: Chemistry, Biochemistry of DNA Damage (1)

17h00 **Dimitar Angelov** “Oxidatively generated DNA-DNA and DNA-protein cross-link: biochemical and structural applications”

17h30 **Peter Karran** “DNA thiobases, photochemical damage and repair”

18h00 **Geneviève Pratviel** “DNA as a unique tool for the investigation of the mechanism of action of oxidation catalysts”

18h30 **Marisa Taverna Porro** “Complex DNA lesions generated through 2-deoxyribose oxidation”

19h00 Cocktail

19h30: Diner

Tuesday March 13

8h30 – 10h30: Nanotoxicology

8h30 **Fabrice Nessler** “Specificity of the characterization of genotoxic risk associated with nanoparticles: example of SiO₂ and TiO₂”

9h00 **Maria Dusinska** “Genotoxicity of nanoparticles”

9h30 **Micheline Kirsch-Volders** “Genotoxicity of amorphous silica nanoparticles: Modes of action”

10h00 **Marie Carrière** “TiO₂ nanoparticles genotoxicity and impact on cell ability to repair DNA”

10h30 – 10h50: Coffee break

10h50 – 12h05: Genotoxicology – Industrial Aspects

10h50 **Laurent Marrot** “Evaluation of sunscreens: a biological strategy to define a safe sun protection *in vitro*”

11h20 **G. E. Johnson** “How do thresholds for mutagenicity and clastogenicity arise for alkylating agents?”

11h50 **Carine Ladeira** “Assessment of the influence of genetic polymorphism in DNA repair gene XRCC3 and metabolic enzymes ADH5 and ADH3 in the frequency of genotoxicity biomarkers in workers exposed to formaldehyde”

12h35: Lunch

17h00 – 19h15: Chemistry, Biochemistry of DNA Damage (2)

17h00 **Sophie Bombard** “Telomeres, potential targets of platinum complexes: consequences *in vitro* and *in cellulo*”

17h30 **Marc Greenberg** “Nucleic acid damage in nucleosomes”

18h00 **Nicholas E. Geacintov** “Oxidatively generated guanine-thymine cross-links in DNA and structural insights into susceptibility to nucleotide excision repair”

18h30 **Jean Cadet** “Radical oxidation reactions of guanine: facts and theory”

19h00 **Ketil Hylland** “DNA damage and repair in marine ecotoxicology”

19h30: Diner

21h00 – 22h30: Poster Session

Wednesday March 14

8h30 – 10h30: DNA Damage and Repair, Aging, Brain

8h30 **Isabel Beerman** “Hematopoietic stem cell quiescence attenuates DNA damage response and permits DNA damage accumulation during aging”

9h00 **Wilhelm Bohr** “Functions of human premature aging proteins in DNA repair”

9h30 **Laura Niedernhofer** “DNA damage as a driver of aging-related degenerative diseases”

10h00 **Marie Galas** “Tau: A new function in neuronal DNA protection. Implication in Alzheimer’s disease physiopathology”

10h15 **Walid Rachidi** “Alzheimer’s disease-associated neurotoxic peptide amyloid- β impairs base excision repair in human neuroblastoma cell”

10h30 – 10h50: Coffee break

10h50 – 12h30: DNA Damage and Repair, Disease

10h50 **Pablo Radicella** "Is the prion protein an unexpected link between base excision repair and neurodegeneration?"

11h20 **Zdenko Herceg** “Role of histone modifications in DNA damage response, genomic stability and cancer”

11h50 **Sylvie Sauvaigo** “Classification of cancer cell lines according to their DNA repair response to DNA damaging agents”

12h15 **Marc Audebert** “Food mutagens in relation to risk of colorectal carcinogenesis”

12h30: Lunch

17h00 – 19h15: Chemical, Biochemical Aspects of DNA Repair (1)

17h00 **Leon Mullenders** “DNA photolesion recognition and processing through nucleotide excision repair-dependent and -independent pathways”

17h30 **Murat Sapparbaev** “Alternative repair pathways to handle complex DNA damage generated by oxidative stress and anticancer drugs”

18h00 **Jean Breton** “Tools and strategies for DNA damage interactome analysis”

18h30 **Martine Lomax** “Processing AP sites as single lesions and within clustered damaged sites when present in mononucleosomes”

18h45 **Enni Markkanen** “Regulation of oxidative DNA damage repair by DNA polymerase λ and MutYH by cross-talk of phosphorylation and ubiquitination”

19h00 **Hervé Menoni** “Real time live cell imaging of oxidative DNA lesion repair”

19h30: Diner

Thursday March 15

8h30 – 10h45: DNA Damage and Repair, Therapy, Biomarkers

8h30 **Stephen Loft** “Guanine oxidation in human populations”

9h00 **Janet Hall** “PARP inhibitors: therapeutic usefulness outside the setting of BRCA mutation carriers”

9h30 **Zvi Livneh** "Functional assays of DNA repair enzymes acting on oxidative DNA damage as risk biomarkers for lung cancer"

10h00 **Marie Dutreix** “Inhibiting repair by overactivating damage signalling: a new cancer therapy strategy”

10h30 **Amélie Croset** “siDNA: a tool to study the DNA damage response and inhibit DNA repair”

10h45 – 11h05: Coffee break

11h05 – 12h25: Ionizing and UV Radiations: from the Lesions to the Cell Response

11h05 **Jarah A. Meador** “5-mC and 5-hmC changes in human blood as a tool for radiation biodosimetry”

11h20 **Jean-Luc Ravanat** “Radiosensitization induced by Synchrotron Radiation in presence of High Z Elements”

11h35 **Suzanne Sommer** “Mechanisms involved in DNA double strand break repair in *Deinococcus radiodurans*, a bacteria known for its extreme resistance to ionizing radiation”

11h55 **Thierry Douki** “Respective contribution of oxidative and direct DNA damage to the genotoxicity of UVA”

12h30: Lunch

17h00 – 18h30: Chemical, Biochemical Aspects of DNA Repair (2)

17h00 **Bertrand Castaing** “Structure-Activity study of DNA glycosylases »

17h30 **Peter O’Neill** “Clustered DNA damage: a danger in hiding”

18h00 **Ulrich Hübscher** “Oxygen as a friend and enemy: how to combat the mutational potential of 8-oxo-guanine”

18h15 **Sarah Cooper** “The effect of PARP inhibition on the dynamics of recruitment of XRCC1 to radiation induced DNA damage in mammalian cells”

18h30 Open discussion - End of the meeting scientific sessions

19h30: Gala Diner

Friday March 16

8h00-8h45: Breakfast - Departure

The organizing committee wishes to thank the following sponsors for making this meeting possible:

