

The symposium is dedicated to the memory of Ethel Moustacchi, an exceptional woman and scientist who passed away in December 2016 from sudden illness at the age of 83 years. Her friends and colleagues come together sharing common scientific goals and friendships.

Born in 1933 in Cairo (Egypt) in a multicultural and francophone environment, after her arrival in France in 1951, Ethel Moustacchi underwent a spectacular personal and scientific career, exceptional in her personal as well as in her professional life. Her joyful energy, warm humanity, open mindedness, intellectual rigor and scientific work elicited admiration and love. With her close friend, Piera Rossi, a known artist and sculptor who accompanied her from early childhood up to her death, Ethel Moustacchi shared a good sense of humour, curiosity, creativity, personal strength and dynamism that easily spread over to her environment. Thus, there are now many friends of her all over the world.

All her life, Ethel Moustacchi was a passionate scientist and humanist, always engaged for excellent science as well as for human rights and social justice. Constantly pleading for the liberty of University teaching and research, she participated in the events of May 1968 in France raised in reaction to University mandarines.

From very early on, Ethel Moustacchi manifested a vivid interest in biological sciences. Brief university studies at the Ecole de Chimie in Montpellier opened the way to join the Institut du Radium (directed by Irene Joliot-Curie) in Paris in 1951, and start her very active professional life. Licences and certificates obtained at the Sorbonne University in Paris with pioneers of molecular genetics such as Boris Ephrussi, André Lwoff, François Jacob and Jacques Monod and meetings with Salvador Luria and Raymond Latarjet conditioned her engagement in Genetics and Radiation Biology. After her doctoral thesis on the factors of radioresistance in yeast (Direction : R. Latarjet) at the Institut du Radium (renamed Institut Curie in 1978) she was recruited in 1959 by the CNRS (National Centre of Scientific Research).

After a stay with Don Williamson in Hershel Roman's laboratory of Genetics (University of Washington, Seattle), in 1966 she took over the direction of the laboratory of radiobiology, at the Institut du Radium on the campus of the Faculty of Sciences in Orsay. Throughout, she made native and many foreign students feel at home in her laboratory.

For her pioneering work on the mechanisms and genetic control of DNA repair in yeast (*Saccharomyces cerevisiae*), the genotoxicity of UV and ionizing radiation as well as mutagenic and carcinogenic chemical drugs, Ethel Moustacchi received wide-ranging international recognition. She was one of the first to isolate mitochondrial DNA and radiation-sensitive and DNA repair deficient mutants in eukaryotic cells and contributed to set up a common nomenclature (rad). In 1978, during a sabbatical stay in Errol C. Friedberg's laboratory in Stanford University, she started working with human cells defective in DNA repair (XP). In 1984, Ethel took over from R. Latarjet the direction of his research unit at the Institut Curie, rue d'Ulm (Pavillon Pasteur) in Paris. In the following, Ethel performed founding research work on DNA repair mechanisms, with special focus on the repair of DNA cross-links (CL) in mammalian cells and the human DNA repair disease Fanconi anemia predisposing to CL and radiation sensitivity and cancers. Here, she made major contributions to the discovery of factors predisposing to cancer. Ethel Moustacchi was also an excellent university lecturer. Many students (now established as known scientists) benefited from her great talent to transmit scientific knowledge and passion for scientific advances. Up to her last days, Ethel was busy preparing a special lecture for students summarizing her experience and highlighting the beneficial role played by science for the evolution of mankind and its environment. In addition, she was always highly appreciated and acted as advisor for institutions concerned with radiation research and protection (e.g. CEA, IRSN etc). Also, after retirement in 1998, she kept her life long attachment to the Institut Curie, her strong involvement in scientific matters following Ph.D. students' work and clinically oriented research (low dose radiation effects, secondary cancers and individual radiation sensitivity cancers) and her fascination for upcoming new research lines.

With more than 200 original publications, Ethel received several scientific prizes (Edna Roe Award 1989 in Photobiology, the Rosen Prize of the French Foundation for Medical Research and the INSERM Prize of Honour 2011), testifying her wide ranging scientific work. For her engagement in promoting basic biomedical research and the role of science in the general society, she was nominated Chevalier de la Légion d'Honneur in 2000.

As an outstanding active women and great personality Ethel Moustacchi will stay in everybody's memory who knew her. A grand Dame with a great heart and spirit is herewith acknowledged.

(Dietrich Averbeck , August 15th, 2017)

DNA repair, Repair syndromes and Radiation biology

**Symposium in memory of
Dr. Ethel Moustacchi**

September 18, 2017
Institut Curie

Organizers

Geneviève ALMOUZNI
Jean-Pierre DE VILLARTAY
Alain NICOLAS
Evelyne SAGE
Alain SARASIN
Angela TADDEI



Registration at

<http://sondage.curie.fr/index.php?sid=22747>



Institut Curie, Amphithéâtre Constant Burg, 12 rue Lhomond, Paris 5^e

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9h00 : Opening by Geneviève Almouzni, Director of the Research Center of Institut Curie

9h10 : A few words by André Syrota, CEA

9h20 : Geneviève Almouzni, Institut Curie, CNRS UMR3664,
When Chromatin meets DNA repair

9h40 – 10h25 Chair Alain Sarasin

- 9h40 Miroslav Radman, Univ. Paris-Descartes, Paris; MedILS, Split
About robustness of life and fragility of organisms
(A belated talk promised to Ethel)
- 10h10 Alain Nicolas, Institut Curie, CNRS UMR3244, PSL Univ. Paris
From mutator genes to mutational landscapes

10h30 – 11h00 Coffee-break

11h00 – 12h30 Chair Angela Taddei & Bertrand Duvillié

- 11h00 Maria Jasin, Memorial Sloan-Kettering Medical Center, New York
Protecting the genome by homologous recombination
- 11h30 Giora Simchen, The Hebrew University of Jerusalem
Timing of occurrence of new mutations during meiosis and their association with recombination
- 11h50 Filippo Rosselli, Gustave Roussy, CNRS UMR8200, Univ. Paris-Sud, Villejuif
A 30-year long walk with Ethel: from DNA repair to ribosome biogenesis alterations in Fanconi anemia
- 12h10 Joao Henriques, Brasilian Academy of Sciences
New features on Pso2 protein family in DNA interstrand cross-link repair and in the maintenance of genomic integrity in *S. cerevisiae*

12h30 – 14h00 Lunch

14h00 – 15h45 Chair Martine Defais & Evelyne Sage

- 14h00 "Témoignage" by Dietrich Averbeck, Institut Curie, CEA, IRSN
Ethel Moustacchi: an active life of humanity and science
- 14h20 Penny Jeggo, Univ. of Sussex, Brighton
DNA double strand break repair: the mechanisms and their fidelity
- 14h50 Gaelle Legube, CNRS UMR5088, Univ. Toulouse-Paul Sabatier, Toulouse
Chromatin and chromosome dynamics at DNA Double Strand Breaks
- 15h10 Jean Pierre de Villartay, Institut Imagine, Hôpital Universitaire Necker-Enfants Malades, Paris
Programmed DNA dsb in the immune system: a dangerous game under control
- 15h30 Dominique Stoppa-Lyonnet, Dpt de Biologie des tumeurs - Service Génétique, Institut Curie, Univ. Paris Descartes
From genetic DNA repair diseases to frequent cancer predispositions

15h50 – 16h20 Coffee-break

16h20 – 17h40 Chair Claire Alapetite & Pascale Bertrand

- 16h20 Laure Sabatier, Direction de la Recherche Fondamentale, CEA, Fontenay-aux-Roses
Radiation Biology: 15 years of European Integrated actions and beyond
- 16h40 Marie Dutreix, Institut Curie, CNRS UMR3347, Orsay
DNA repair inhibition as a cancer therapy
- 17h00 Sophie Polo, CNRS UMR7216, Univ. Paris-Diderot, Paris
Epigenome maintenance in response to UV damage
- 17h20 Pierre-Henri Gaillard, CNRS UMR7258, Centre de Recherche en Cancérologie de Marseille, Marseille
A bimbo playing with DNA scissors

17h40 Concluding remarks G. Almouzni, A. Taddei, E. Sage

18h00 Diner cocktail