

# Epigenetics and Epigenomics in Health and Disease

10-11 September 2020, Brussels

in partnership with



#EEHD20

## Speakers include:

**Shelley Berger**, Philadelphia, USA

**Luciano Di Croce**, CRG, Barcelona, Spain

**Danette Daniels**, Promega, USA

**Mark Dawson**, Melbourne, AUS

**Michaela Frye**, German Cancer Research Centre, Heidelberg, Germany

**Richard Gregory**, Boston Children's Hospital, USA

**Kristian Helin**, NY, USA

**Cigal Kadoch**, Harvard, USA

**Tony Kouzarides**, Cambridge, UK

**Rob Martienssen**, Cold Spring, USA

**Danny Reinberg**, NYU, USA

**Anne Schaefer**, NY, USA

**Ramin Shiekkathar**, Miami, USA

**Andrea Schorn**, Cold Spring, USA

**Ali Shilatiffard**, Chicago, USA

**Sasha Tarakhovsky**, NY, USA

**John Westhine**, Harvard, USA

**Yungui Yang**, CAS, Beijing, China

**Rab Prinjah**, GSK, UK

**Yang Shi**, Harvard, USA

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# Introduction

These are exciting times for discovering the biological scope and the mechanisms of action for DNA and RNA molecules, which have great impact in health and diseases, including cancer and neurodevelopmental disorders. Epigenetic mechanisms, such as postranslational modifications of chromatin (DNA and histones), play pivotal roles in development, cell differentiation and cell identity. Inappropriate regulation of epigenetic mechanisms has been implicated in common human diseases. Moreover, there has been a recent explosion of activity in the fields of RNA epigenetics and non-coding RNAs, which have become integral parts of the field of gene expression.

This International Meeting on “Epigenetics and Epigenomics in Health and Disease” will integrate different sessions on: transcription and chromatin in gene regulation, DNA modifications, RNA epigenetics, non-coding RNA, epigenomic tools. Besides bringing the newest findings on epigenetic mechanisms, a special focus will be dedicated to discuss novel and promising therapeutic drugs aimed at reversing specific epigenetic alterations.

The meeting will gather scientists using diverse approaches, such as molecular biology, cell biology genetics, epigenomics, and biochemistry. Researchers from pharmaceutical companies and clinicians working in different fields but sharing the same interests will also find the meeting an ideal opportunity to meet, discuss and summarize their work.

Furthermore, to ensure that the conference will touch upon the most recent breakthrough in the fast moving field of epigenetics, there will be slots for short talks based on submitted abstracts.

Overall, the meeting will provide great opportunities for senior and junior scientists to meet the leaders in the field from both academia and industry, hence forging exciting interdisciplinary interactions and creating potential new collaborations in the booming area of epigenetics and epigenomics and their clinical impacts.

We look forward to welcoming you to Brussels

Scientific programme:



**Prof François Fuks**,  
Director, Laboratory of Cancer Epigenetics &  
ULB-Cancer Research Center (U-CRC),  
**ULB - University of Brussels**

Conference organiser:



**Steve Coldicott**,  
Director, **Precision Medicine Forum**

# Day One: Thursday September 10, 2020

9:00am–5:15pm  
Conference Registration

9:00pm–9:15pm  
Welcome

**Prof François Fuks**, Director, Laboratory of Cancer Epigenetics & ULB-Cancer Research Center (U-CRC), **ULB - University of Brussels**

## Session 1: Epigenetic Mechanisms and Diseases

Chair: **Danette L. Daniels**, Ph.D, Group Leader, **Promega**

9:15am–9:45am  
Epigenetic Pathways as Targets in Human Cancer

**Shelley Berger**, Philadelphia, USA

9:45am–10:15am  
Epigenetic control of neurodegeneration

**Anne Schaefer**, Icahn School of Medicine, **Mount Sinai**, New York

10:15am–10:45am  
Coffee Break

10:45am–11:15am  
Unveiling polycomb functions in stem cells and cancer

**Luciano Di Croce**, Ph.D, CRG & ICREA, **Barcelona**, Spain

11:15am–11:45am  
Role of integrators in human pathologies

**Ramin Shiekkathar**, Miami, USA

11:45am–12:00pm  
Short Talk  
TBD

12:00pm–12:30pm  
Principles of Epigenetics and Chromatin in Development and Human Disease

**Dr Ali Shilatifard**, Chairman, Department of Biochemistry and Molecular Genetics Director, **Simpson Querrey Center for Epigenetics Northwestern University Feinberg School of Medicine**

12:30pm–1:45pm  
Networking Lunch and Posters

1:45pm–2:00pm  
Company presentations

## Session 2: Chromatin Dysregulations in Human Disorders

Chair: **Richard Gregory**

2:00pm–2:30pm  
Epigenetics: One Genome, Multiple Phenotypes

**Dr. Danny Reinberg**, Howard Hughes Medical Institute, **NYU Langone School of Medicine**

2:30pm–3:00pm  
tRNA-derived small RNAs support genome stability during epigenetic reprogramming

**Andrea Schorn**, Cold Spring Harbor Laboratory

3:00pm–3:15pm  
Short Talk  
TBD

3:15pm–3:45pm  
Coffee Break

3:45pm–4:15pm  
BAF Complex Structure and Function in Human diseases

**Cigall Kadoch**, PhD, Assistant Professor, **Dana-Farber Cancer Institute and Harvard Medical School**

4:15pm–4:45pm  
Epigenetics as a Gatekeeper to DNA amplification

**John Westhine**, Harvard, USA

4:45pm–5:00pm  
Short Talk  
TBD

5:00pm–5:30pm  
Drawing on proteins disorder: how viruses impact chromatin function

**Alexander Tarakhovsky**, M.D., Ph.D., Professor and Head of Laboratory, **The Rockefeller University**

# Day Two: Friday September 11, 2020

9:00am–12:00pm  
Conference Registration

## Session 3: The RNA world : non-coding RNA and RNA epigenetics

Chair: John Westhine

9:00am–9:30am  
Replication-Coupled Silencing and Spreading with RNAi

Rob Martienssen, HHMI, Cold Spring Harbor Laboratory

9:30am–10:00am  
Modifications of RNA: Their Function and Role in Cancer

Tony Kouzarides, Group Leader, University of Cambridge

10:00am–10:30am  
Coffee Break

10:30am – 11:00am  
Gene Expression Regulation by RNA Methylation

Prof Yun-Gui Yang, Beijing Institute of Genomics, Chinese Academy of Sciences

11:00am–11:30am  
Oncogenic role of the METTL1/WDR4 RNA methyltransferase complex

Richard Gregory, Boston Children's Hospital, USA

11:30am–11:45am  
Short Talk  
TBD

11:45am–12:15pm  
Targeting RNA modifications in cancer

Michaela Frye, German Cancer Research Centre, Heidelberg, Germany

12:15pm–1:15pm  
Networking Lunch and Posters

1:15pm–1:30pm  
Company presentations

## Session 4: Novel Therapeutic Discoveries in Epigenetics

Chair: Luciano Di Croce

1:30pm–2:00pm  
Molecular Mechanisms Governing Sensitivity and Resistance to Epigenetic Therapies

Prof Mark Dawson, Group Leader Cancer Epigenetics Laboratory, Peter MacCallum Cancer Centre

2:00pm–2:30pm  
Epigenetic Targets for the Treatment of Human Diseases

Rab Prinjha, VP Head of Adaptive Immunity Research Unit, GSK

2:30pm–2:45pm  
Short Talk  
TBD

2:45pm–3:15pm  
Coffee Break

3:15pm–3:45pm  
Role of Polycomb in human diseases

Kristian Helin, Memorial Sloan Kettering Cancer Center

3:45pm – 4:15pm  
Identification of novel epigenetic therapeutic targets

Yang Shi, C.H. Waddington Professor of Pediatrics, Harvard Medical School

4:15pm–5:00pm  
Short Talk  
TBD

5:00pm–5:30pm  
Understanding the Functional Pathway of BET Family Degradation Compounds

Danette L. Daniels, Ph.D, Group Leader, Promega

5:30pm–7:30pm  
Free time

8:30pm  
Conference event

**Precision Medicine Forum Conference on  
“Epigenetics and Epigenomics in Health and Disease”  
in partnership with ULB Brussels**

**The conference will be held at  
Faculty of Medicine, Erasmus Campus, Université libre de Bruxelles,  
10-11 September 2020**

Scientific Programme: Prof. François Fuks, Université Libre de Bruxelles

## **The two day conference will:**

- 1) Present the most cutting-edge results regarding epigenetic dysregulation in cancer, and discuss how to efficiently transfer new knowledge into clinical practice;
- 2) Integrate results from different disciplines, fields and model systems, as well as innovative technological approaches (e.g., omics-based) to present new ideas that challenge existing paradigms;
- 3) Foster collaborations by providing a setting conducive to collegial interactions among scientists with broad interests at the interface of epigenetics, human health and cancer, including engagement with industrial partners interested in targeting cancer.

## **Submit an abstract and register today**

### Guidelines for the abstract structure

- The acceptable word range for the abstract is 175 – 275 words. The abstracts which do not meet this word limit will be sent back to the author(s) to be revised.
- Your submission should be in English.
- Please send in a brief biography together with the Abstract.

Short talk speakers will be chosen from all abstracts submitted by the abstract deadline.

### **Deadlines:**

- Abstract submission - 10 June 2020 – please submit via email to [emilyjones@precisionmedicineforum.com](mailto:emilyjones@precisionmedicineforum.com)
- Register and submit your poster by 10 June 2020 to [register@precisionmedicineforum.com](mailto:register@precisionmedicineforum.com)
- Discounted Registration – Conference Rates:

#### **Academic/Healthcare €300**

(Early Bird 1 Expires 30 April €150 Early Bird 2 ends 15 June €200)

#### **Industry: €600**

(Early Bird 1 Expires 30 April €400, Early Bird 2 ends 15 June €500)

## Choose Your Delegate Package:

### Conference Rate:

**Academic/Healthcare €300**

(Early Bird 1 Expires 30 April €150 Early Bird 2 ends 15 June €200)

**Industry: €600**

(Early Bird 1 Expires 30 April €400, Early Bird 2 ends 15 June €500)

### Fee includes:

- Conference Pass giving access to all sessions, posters etc
- Delegate Programme
- Buffet lunch, snacks and refreshments throughout the conference
- Conference closing party

### Registration:

To register please visit  
[www.precisionmedicineforum.com](http://www.precisionmedicineforum.com) or email  
[register@precisionmedicineforum.com](mailto:register@precisionmedicineforum.com)

### Venue:

Faculty of Medicine  
Erasmus Campus  
Free University of Brussels

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For more information please contact Steve Coldicott  
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