



## MGC course ' **Genome Maintenance and Cancer** '

Date: **26-27 March, 2020**

Location: LUMC

### [Registration](#)

Note: Friendly request to fill in the name of your department and institute at the registration!

Preservation of genetic information (DNA) is of prime importance to all living systems. The aim of the course is to familiarize participants with the mechanisms that are involved in maintaining genome stability. In the environment humans are exposed to chemical agents and radiation, which threaten the integrity of the genetic material leading to risks for the induction of cancer and congenital malformation. To withstand the harmful effects of DNA damage and to maintain genome integrity, cells are equipped with an intricate network of DNA damage response pathways. Key players in these processes are protein complexes involved in DNA replication, DNA repair and chromosome segregation as well as regulators of the cell cycle and cell death.

This course will provide an up to date insight in the chain of reactions from exposure to the ultimate consequences. Lectures will deal with the basic principles of several cell biological aspects such as DNA damage formation, signalling pathways, DNA repair and mutation formation. A few lectures will deal with more applied research.

There is a minimum of 14 and a maximum of 35 places. Deadline for registration 10 March, 2020.

The course is free of charge for all personnel of MGC associated institutes and OOA (VUMC, AMC, NKI departments), CTO (UMC Utrecht), and RIMLS/RIHS (Radboud UMC) associated departments. Participants from outside these organizations pay € 200 for this course. In case of no show participants from the MGC, OOA, CTO and RIMLS/RIHS institutes will be charged 50 euro, other participants have to pay the full price.

### **Programme**

<b>26 March Lecture room P5-34</b>	
	<b>Chair: Harry Vrieling</b>
09.00-10.00	<b>Harry Vrieling</b> (Human Genetics, LUMC) Introduction: mutations in cancer development
10.00-11.00	<b>Niels de Wind</b> (Human Genetics, LUMC) Mismatch repair, translesion synthesis and cancer susceptibility
11.00-11.15	Coffee/tea
11.15-12.15	<b>Conchita Vens</b> (Div. of Biological Stress Response, NKI) Base excision repair and cancer susceptibility
12.15-13.00	Lunch
	<b>Chair: Marcel Tijsterman - Haico van Attikum</b>
13.00-14.00	<b>Hannes Lans</b> (Molecular Genetics, Erasmus MC) Nucleotide excision repair: mechanism and disease

14.00-15.00	<b>Marcel Tijsterman</b> (Human Genetics, LUMC) Dealing with derailed replication
15.00-15.15	Coffee/tea
15.15-16.15	<b>Haico van Attikum</b> (Human Genetics, LUMC) DNA damage signalling and repair of double strand breaks in DNA: maintaining genome stability
<b>27 March lecture room P5-34</b>	
	<b>Chair: Maaïke Vreeswijk</b>
09.00-10.00	<b>A.G. Jochemsen</b> (Cell and Chemical Biology, LUMC) Regulation and functions of p53: an example
10.00-11.00	<b>Jacqueline Jacobs</b> (Div. of Oncogenomics, NKI) Telomere instability in relation to DSB repair and cancer
11.00-11.15	Coffee/tea
11.15-12.15	<b>Maaïke Vreeswijk</b> (Human Genetics, LUMC) Mutations in DNA damage response genes and (inherited) cancer susceptibility
12.15-13.00	Lunch
	<b>Chair: Harry Vrieling</b>
13.00-14.00	<b>Ruben van Boxtel</b> (Princess Máxima Center for Pediatric Oncology, Hubrecht Institute, Utrecht) Dissecting mutation patterns in human stem cells to study processes that cause cancer
14.00-15.00	<b>Frank de Gruij</b> (Dermatology, LUMC) UV and skin cancer
15.00-15.15	Coffee/tea
15.15-16.15	<b>Roderick Beijersbergen</b> (Div. of Molecular Oncology, NKI) Functional Genomics and Cancer Therapy: Putting one and one together