
Sunday 01 November 2015

12:00 - 13:15	Arrival and Registration (light lunch will be available) ATC Reception	
13:15 - 13:30	Opening remarks ATC Auditorium	
13:30 - 16:45	Session 1: Cancer Genetics Chairs: Jan Korbelt & Peter Campbell ATC Auditorium	
13:30 - 14:00	Genomic spectra of biliary tract cancer Tatsuhiko Shibata <i>National Cancer Center Research Institute, Japan</i>	1
14:00 - 14:30	Neurooncology: next-generation diagnostics entering the clinical stage Stefan Pfister <i>DKFZ, Germany</i>	2
14:30 - 15:00	Genomic characterisation and personalised risk stratification of acute myeloid leukaemia Moritz Gerstung <i>EMBL-EBI, United Kingdom</i>	3
15:00 - 15:30	Coffee Break ATC Foyer	
15:30 - 15:45	Genome Signatures Defeating Genetically Predisposed Breast Cancer Anelia Horvath <i>George Washington University, United States of America</i>	4
15:45 - 16:00	Clock-like mutational processes in human somatic cells Ludmil Alexandrov <i>Los Alamos National Laboratory, United States of America</i>	5
16:00 - 16:30	To be presented onsite Jan Korbelt <i>EMBL Heidelberg, Germany</i>	6

EMBL Conference: Cancer Genomics

- 16:30 - 16:45 **Pan-cancer analysis of mutations in non-coding regulatory regions and their correlation with gene expression** 7
Jakob Pedersen
Aarhus University Hospital, Denmark
- 16:45 - 17:30 **Coffee Break & Meet the Speakers**
ATC Foyer
- 17:30 - 18:30 **Keynote Lecture: Michael Stratton**
ATC Auditorium
- Signatures of mutational processes** 8
Michael Stratton
Wellcome Trust Sanger Institute, United Kingdom
- 18:30 - 20:00 **Dinner**
ATC Canteen
- 20:00 - 22:00 **Welcome reception and dessert**
ATC Rooftop Lounge

Monday 02 November 2015

09:00 - 12:00	Session 2: Computational & Systems Biology of Cancer Chair: Stefan Pfister ATC Auditorium	
09:00 - 09:30	Big Data Analysis in cancer genomics: example in Breast Cancer mutagenesis Ewan Birney <i>EMBL - EBI, United Kingdom</i>	9
09:30 - 09:45	Systematic detection of candidate cancer vulnerability genes using signs of negative selection Jimmy Van den Eynden <i>University of Gothenburg, Sweden</i>	10
09:45 - 10:00	Contribution of the germline genetic component to drug sensitivity in cancer cell lines Michael Patrick Menden <i>EMBL-EBI, United Kingdom</i>	11
10:00 - 10:30	Cancer drivers and their therapeutic opportunities Nuria Lopez-Bigas <i>University Pompeu Fabra - UPF, Spain</i>	12
10:30 - 11:00	Coffee Break ATC Foyer	
11:00 - 11:30	Cancer Predisposition in the Era of Next Generation Sequencing Andrew Biankin <i>Wolfson Wohl Cancer Research Centre, University of Glasgow, United Kingdom</i>	31
11:30 - 11:45	3-D clustering of cancer missense mutations in protein structures and interaction interfaces Atanas Kamburov <i>Massachusetts General Hospital / Broad Institute, United States of America</i>	14

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11:45 - 12:00	Inferring Directional Genetic Interactions from combinatorial, multi-parametric data Bernd Fischer <i>DKFZ, Germany</i>	15
12:00 - 13:15	Lunch ATC Foyer	
13:15 - 15:15	Poster Session I (odd numbers) ATC Helix A	
15:15 - 18:45	Session 3: Insights into Cancer Genome Biology Chairs: Andrew Biankin & Núria Lopez-Bigas ATC Auditorium	
15:15 - 15:45	The International Cancer Genome Consortium Database Lincoln Stein <i>Ontario Institute for Cancer Research, Canada</i>	32
15:45 - 16:00	Increased somatic mutation rates in transcription factor binding sites caused by impaired access of repair machinery Sabarinathan Radhakrishnan <i>Universitat Pompeu Fabra, Spain</i>	18
16:00 - 16:30	To be presented onsite Benjamin Raphael <i>Brown University, United States of America</i>	20

16:30 - 17:15	Coffee Break & Meet the Speakers ATC Foyer	
17:15 - 17:30	Determining breast cancer histological grade from RNA sequencing data Mei Wang <i>Karolinska Institutet, Germany</i>	21
17:30 - 17:45	Mutational Signatures operative in Liver Cancer Jayendra Shinde <i>INSERM,UMR-1162, France</i>	22
17:45 - 18:15	Integrated analysis of pancreatic cancer Sean Grimmond <i>Wolfson Wohl Cancer Research Centre, University of Glasgow, United Kingdom</i>	23
18:15 - 18:30	Multi-breed canine lymphoma analysis shows somatic mutation patterns reflecting genetic background Ingegerd Elvers <i>Broad Institute of MIT and Harvard; Uppsala University, Sweden</i>	24
18:30 - 18:45	Novel insights into the genetics of sarcoma risk emerge from integration of sequencing, pathway and clinical data David Goode <i>Peter MacCallum Cancer Centre, Australia</i>	25
18:45 - 20:30	Dinner ATC Canteen	
20:30 - 22:00	After dinner drinks and dessert ATC Rooftop Lounge	

Tuesday 03 November 2015

09:00 - 12:00	Session 4: Cancer Functional Genomics & Epigenomics Chair: Tatsuhiro Shibata ATC Auditorium	
09:00 - 09:30	Precision medicine: cancer genomics and beyond Carlo Toniatti <i>MD Anderson Cancer Center, United States of America</i>	26
09:30 - 09:45	Genome-wide iRNA screening identifies novel aneuploidy-inducing gene knockdowns that transform telomerase positive human cells Cagatay Gunes <i>Fritz-Lippman-Institute, Germany</i>	27
09:45 - 10:00	Discovering novel tumor-promoting genes in invasive lobular breast cancer by in-vivo insertional mutagenesis Julian de Ruiter <i>Netherlands Cancer Institute, The Netherlands</i>	28
10:00 - 10:30	Translating Cancer Genomics into Novel Drug Targets John Brognard <i>Cancer Research UK Manchester Institute, United Kingdom</i>	29
10:30 - 11:15	Coffee break ATC Foyer	
11:15 - 11:45	Genome-epigenome interplay in medulloblastoma Paul Northcott <i>St. Jude Children's Research Hospital, United States of America</i>	30
11:45 - 12:00	Integrative genomics approach reveals ancestry-related cis-eQTLs in head and neck cancers Meganathan Poorlin Ramakodi <i>Fox Chase Cancer Center-Temple Health, United States of America</i>	132

12:00 - 13:15	Lunch ATC Foyer	
13:15 - 15:15	Poster Session II (even numbers) ATC Helix A	
15:15 - 18:00	Session 5: Genome Medicine & Big Data Chairs: Benjamin J. Raphael & Lynda Chin ATC Auditorium	
15:15 - 15:45	Interrogating the architecture of cancer genomes Peter Campbell <i>Wellcome Trust Sanger Institute, United Kingdom</i>	17
15:45 - 16:00	A landscape of pharmacogenomic interactions in cancer Francesco Iorio <i>EMBL-EBI & Wellcome Trust Sanger Institute, United Kingdom</i>	33
16:00 - 16:30	Understanding the genomic steps from Barrett's oesophagus to oesophageal cancer and applications to earlier diagnosis Rebecca Fitzgerald <i>University of Cambridge, United Kingdom</i>	34
16:30 - 17:15	Coffee Break and Meet the Speakers ATC Foyer	
17:15 - 17:45	Transforming cancer research and care Lynda Chin <i>Institute for Health Transformation, University of Texas System, United States of America</i>	13
17:45 - 18:00	Next Generation Sequencing – Next Generation Ethics? Trends in the Ethical Debate on Genomic High Throughput Data Alexander Urban <i>University Medicine Göttingen, Germany</i>	36

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18:00 - 19:00 **Keynote Lecture: Michael D. Rhodin**
ATC Auditorium

**Watson and Genomics: How cognitive computing will
transform medicine** 37
Michael Rhodin
IBM Watson Group, United States of America

19:00 - 19:15 **Closing remarks**
ATC Auditorium

19:15 - 00:00 **Banquet Dinner and Party**
ATC Canteen and Foyer

Wednesday 04 November 2015

09:00 - 12:15	Session 6: Workshop for young scientists - Analytics of Cancer Genomes with focus on Pan-Cancer Analysis Chairs: Jan Korbel & Postdocs ATC Auditorium	
09:00 - 09:05	Welcome remarks ATC Auditorium	
09:05 - 09:15	Modeling Higher Moments in Cancer Genomics: A Different Way to Understand Gene Regulation Jessica Mar <i>Albert Einstein College of Medicine, United States of America</i>	38
09:15 - 09:25	Non-coding driver detection using site-specific regression of the expected mutation rate Malene Rasmussen <i>Aarhus University Hospital, Denmark</i>	39
09:25 - 09:35	OncodriveFML: A general framework to identify coding and non-coding regions with cancer driver mutations Loris Mularoni <i>Universitat Pompeu Fabra, Spain</i>	40
09:35 - 09:55	Discussion (Workshop Session 1) ATC Auditorium	
09:55 - 10:05	Estimating the impact of cis-regulatory variation in cancer genomes using enhancer prediction models and matched genome-epigenome-transcriptome data Zeynep Kalender Atak <i>Center for Human Genetics, KU Leuven, Belgium</i>	41
10:05 - 10:15	Pan-cancer transcriptomic analysis associates long non-coding RNAs with key driver mutational events Arghavan Ashouri <i>University of Gothenburg, Sweden</i>	42
10:15 - 10:35	Discussion (Workshop Session 2) ATC Auditorium	

EMBL Conference: Cancer Genomics

- 10:35 - 11:00 **Coffee Break**
ATC Foyer
- 11:00 - 11:10 **Allele-specific copy number estimation from sequencing - ACEseq** 43
Kortine Kleinheinz
DKFZ, Germany
- 11:10 - 11:20 **Exploring the impact of natural and aberrant structure variations in oncoprotein-mediated signaling networks through structural bioinformatics** 44
Francesco Raimondi
University of Heidelberg, Germany
- 11:20 - 11:30 **Predicting the mechanistic impact of mutations and modifications on molecular interactions** 45
Matthew Betts
CellNetworks, University of Heidelberg, Germany
- 11:30 - 12:15 **Discussion (Workshop Session 3 & Concluding Discussion)**
ATC Auditorium
- 12:15 - 12:45 **Packed lunch**
ATC Foyer
- 12:45 **Busses to Frankfurt Int. Airport and downtown Heidelberg**

Poster removal (Please remember to collect your poster. Posters which have not been collected will be disposed of after the meeting.)

Feedback Questionnaire - Check your inbox when the meeting ends! You will find an email with the link to the online feedback questionnaire. Please take time to complete it!