

# ATW2017 Ataxia-Telangiectasia Workshop

Milan, March 20-24, 2017

IFOM, Conference Room - Bldg 9

## Program

### Monday, March 20

14:00	16:00	<b>Registration</b>	
15:30	16:15	<i>Welcome refreshment</i>	
16:15	16:30	<b>Vincenzo Costanzo</b>	
			<b>Opening Lectures</b>
			<b>Chair: Vincenzo Costanzo</b>
16:30	17:00	<b>Yossi Shiloh</b>	Ataxia-telangiectasia and ATM: 22 years later
17:00	17:30	<b>Luigi Naldini</b>	HSC-mediated gene therapy of inherited diseases: from gene replacement to gene editing
17:30	18:15	<b>Jan Hoeijmakers</b>	<b>Keynote Lecture:</b> DNA damage and its impact on sustained health
18:30	20:00	<i>Drinks &amp; dinner buffet @ Campus bar</i>	

### Tuesday, March 21

			<b>Signalling, cellular metabolism and cancer</b>
			<b>1<sup>st</sup> Chair: Tanya Paull</b>
08:30	08:50	<b>Tanya T. Paull</b>	Mechanisms and consequences of ATM activation via oxidative stress
08:50	09:10	<b>Martin Lavin</b>	ATM protects lung epithelial cells against oxidative damage
09:10	09:30	<b>Vilhelm A. Bohr</b>	Nuclear to mitochondria DNA damage signaling in neurodegeneration and aging
09:30	09:50	<b>Shan Zha</b>	Separate the tumor suppression function ATM from its neuronal protection role
09:50	10:05	<b>Grigory Dianov</b>	ATM activates a "point of no return" mechanism in response to persistent DNA damage to enforce elimination of genetically unstable cells
10:05	10:20	<b>Sina Atashpaz</b>	DNA damage response mediated transcriptional regulation in stem cells: implications for genome stability maintenance
10:20	10:50	<i>Coffee break</i>	
			<b>2<sup>nd</sup> Chair: Fabrizio d'Adda di Fagnaga</b>
10:50	11:10	<b>Fabrizio d'Adda di Fagnaga</b>	ATM activation and the role of non coding RNAs
11:10	11:30	<b>Malcolm Taylor</b>	A novel role of PALB2 in lymphoid tumour development
11:30	11:45	<b>Christopher Bruhn</b>	Metabolic Regulations by Genome Integrity Surveillance Checkpoints
11:45	12:00	<b>Maria Vinciguerra</b>	Multiple metabolic defects in Ataxia Telangiectasia cells
12:00	12:15	<b>Christian Marx</b>	DNA Damage Response In Cellular Metabolism
12:15	13:30	<i>Lunch buffet @ Campus bar</i>	

With the support of



			<b>Ataxia Telangiectasia, clinical aspects and therapeutical options</b>
			<b>3<sup>rd</sup> Chair: Claudio Pignata</b>
13:30	13:50	<b>Howard M. Lederman</b>	A-T is a disease of disordered inflammation
13:50	14:10	<b>Luciana Chessa</b>	New insights in the corticosteroids therapy in Ataxia Telangiectasia
14:10	14:25	<b>Mauro Magnani</b>	RBC as circulating carriers for the release of Dexamethasone in the treatment of AT
14:25	14:45	<b>Claudio Pignata</b>	Novel aspects in A-T pathogenesis as potential target of therapeutic intervention
14:45	15:00	<b>Alexander Bishop</b>	Ataxia telangiectasia, a metabolic disorder disease
15:00	15:20	<b>Oscar Fernández-Capetillo</b>	Exploring the physiological impact of SMC5/6 complex deficiencies with mouse models
15:20	15:30	<b>Antonio Ferrari</b>	EryDel: breaking announcement
			<b>Poster session 1 [Room 1+2]</b>
15:30	18:00	<b>Parallel event: Roundtable with AT Patients Families Associations - By invitation only</b>	
			<i>Coffee break</i>
			<i>Free dinner</i>

## Wednesday, March 22

			<b>ATM, DNA repair and the nervous system</b>
			<b>1<sup>st</sup> Chair: Domenico Delia</b>
08:30	08:50	<b>Richard Gatti</b>	Phenotypes of DNA repair disorders
08:50	09:10	<b>Karl Herrup</b>	ATM and ATR: the view from the neuronal synapse
09:10	09:30	<b>Ari Barzilai</b>	The role of ATM in brain homeostasis and functionality
09:30	09:50	<b>Domenico Delia</b>	DNA damage and activity dependent responses in A-T patient-derived neurons
09:50	10:10	<b>Keith W. Caldecott</b>	Single-strand breaks and neurodegenerative disease
10:10	10:40	<i>Coffee break</i>	
			<b>2<sup>nd</sup> Chair: Peter McKinnon</b>
10:40	11:00	<b>Peter J. McKinnon</b>	ATM and the DNA Damage Response in the Developing Cerebellum
11:00	11:20	<b>Zhao-Qi Wang</b>	Role of early DNA damage molecules in neurological defects
11:20	11:35	<b>Tej Pandita</b>	SMARCAD1 phosphorylation and ubiquitination are critical for MRE11 recruitment for resection during DSB repair by homologous recombination
11:35	11:50	<b>Patrick Concannon</b>	Tiered exome sequencing and functional screening identifies novel genes affecting radiosensitivity
11:50	12:05	<b>Markus Löbrich</b>	ATR cooperates with PCNA during homologous recombination
12:05	12:20	<b>Arina Riabinska</b>	Atm restoration <i>in vivo</i> induces lymphoma regression through cell autonomous and non-cell autonomous mechanisms
12:20	12:35	<b>Speakers' picture</b>	
			<b>Poster session 2 [Room 1+2]</b>
12:35	15:30	<b>Parallel event: Core Outcome Set meeting (COS A-T) - By invitation only [Orange room - bldg 4 - 2nd floor]</b>	
			<i>Box lunch @ catering area</i>
<b>Social event (for registered participants):</b>			
15:30	15:45	<i>Get together at IFOM entrance</i>	
15:45		<i>Departure by bus to Villa Reale</i>	
17:00	21:30	<b>Visit &amp; Dinner @ Villa Reale Monza</b>	

## Thursday, March 23

			<b>Maintenance of genome stability</b>
			<b>1<sup>st</sup> Chair: Madalena Tarsounas</b>
08:30	08:50	<b>Steve Jackson</b>	Genetic modifiers of A-T phenotypes
08:50	09:10	<b>Madalena Tarsounas</b>	Identifying druggable targets for synthetic lethal interactions with BRCA2-deficiency
09:10	09:30	<b>Vincenzo Costanzo</b>	Mind the gap: counteracting Mre11 activity at replication forks
09:30	09:50	<b>Maria Pia Longhese</b>	Structural and functional insights into MRX functions at DNA double-strand breaks
09:50	10:05	<b>Shunichi Takeda</b>	Mre11 is essential for the removal of lethal Topoisomerase 2 covalent cleavage complexes
10:05	10:20	<b>Felipe Cortés-Ledesma</b>	Topoisomerase II-induced DNA double-strand breaks contribute to lymphomagenesis linked to ATM deficiency
10:20	10:40	<b>Sherif F. El-Khamisy</b>	C9orf72 Expansion Disrupts Chromosomal Break Repair
10:40	11:10	<i>Coffee break</i>	
			<b>2<sup>nd</sup> Chair: Penny Jeggo</b>
11:10	11:30	<b>Maria Jasin</b>	Role of ATM in homologous recombination in meiotic and mitotic cells
11:30	11:50	<b>Penny Jeggo</b>	Pathways of DNA double strand break repair: an ATM dependent perspective
11:50	12:10	<b>Stephen C. West</b>	Activation of the SMX tri-nuclease is essential for genome stability
12:10	12:30	<b>Mark O'Driscoll</b>	A novel role of a <i>cis/trans</i> peptidyl-prolyl isomerase in DSB repair; ongoing adventures in untangling underlying mechanism and clinical implications
12:30	12:50	<b>Barry Sleckman</b>	Redundant Activities in the Repair of DNA Double Strand Breaks by Non-Homologous End Joining
12:50	14:00	<i>Lunch buffet @ Campus bar</i>	
			<b>Parallel event: Core Outcome Set meeting (COS A-T) - By invitation only [Orange room - bldg 4 - 2nd floor]</b>
			<b>3<sup>rd</sup> Chair: Jean Gautier</b>
14:00	14:20	<b>Marco Foiani</b>	An integrated ATR, ATM and mTOR-mechanical network controlling nuclear plasticity and cell migration
14:20	14:40	<b>Jean Gautier</b>	Regulation of DNA double-strand breaks motility
14:40	14:55	<b>Jessica Tyler</b>	The roles of chromatin disassembly and reassembly in DNA double-strand break repair and the DNA damage response in human cells
14:55	15:10	<b>Gonen Memisoglu</b>	Mec1 autophosphorylation regulates checkpoint adaptation in <i>S. cerevisiae</i>
15:10	15:25	<b>Rita Cha</b>	Genotype-Phenotype Analysis of MEC1 <sup>ATM/ATR</sup> Reveals Interallelic Interaction Between Potential Cancer Driver Missense Mutations of ATM/ATR
15:25	15:40	<b>Sarem Hailemariam</b>	Activation of the yeast Tel1 <sup>ATM</sup> checkpoint kinase by the Mre11, Rad50 and Xrs2 (MRX) complex and by DNA
15:40	16:10	<i>Coffee break</i>	
			<b>4<sup>th</sup> Chair: Vincenzo Costanzo</b>
16:10	16:30	<b>Thanos Halazonetis</b>	Mechanisms of oncogene-induced DNA replication stress
16:30	16:50	<b>John Petrini</b>	Signaling DNA Damage
16:50	17:10	<b>KJ Patel</b>	One carbon metabolism as a source for endogenous DNA damage
17:10	17:55	<b>Tomas Lindahl Nobel Laureate in Chemistry 2015</b>	<b>Keynote Lecture: DNA Instability and the Role of TREX1</b>
17:55	<b>Conclusions: Vincenzo Costanzo &amp; Marco Foiani</b>		
19:00	21:00	<b>Dinner &amp; Closing party @ Barrio Alto</b>	

## Friday, March 24

### Departure