

<b>Program - IUBMB Focused Meeting on Integrative Omics of Nuclear Functions</b>	
<b>DAY 1, OCTOBER 15</b>	<b>SUNDAY - ARRIVAL AND REGISTRATION</b>
15:00	<b>REGISTRATION OPEN</b>
19:00 – 20:00	<i>WELCOME DRINK, MAIN POOL BAR</i>
20:00	<i>DINNER, MAIN RESTAURANT</i>
<b>DAY 2, OCTOBER 16</b>	<b>MONDAY</b>
8:30 – 8:45	<b>OPENING REMARKS: Organizing Committee</b>  <b>WELCOME ADDRESS: Professor Alexandra Newton, President of IUBMB</b>
8:45 – 9:30	<b>COMPANY OF BIOLOGISTS KEYNOTE LECTURE</b>  <b>Melike Lakadamyali:</b> Super-resolution imaging of chromatin organization in health and disease
9:30 – 10:30	<b>SESSION 1: CHROMATIN MODIFICATIONS</b> <b>Chair: John Strouboulis</b>  <b>9.30-10.00: Simone Sidoli</b> Unexplored Chromatin Modifications and Proteome Heterogeneity in Aging Research: Insights from Next-Generation Mass Spectrometry  <b>10.00-10.30: Alejandra Loyola</b> Insights in the maturation of newly synthesized histones
10.30 – 11:00	<i>COFFEE BREAK</i>
11:00 – 13:00	<b>SESSION 1 (continued): CHROMATIN MODIFICATIONS</b> <b>Chair: Tineke Lenstra</b>  <b>11.00-11.30: EMBO YIP Lecture - Tuncay Baubec</b> Probing chromatin-protein interactions during dynamic regulatory processes  <b>11.30-12.00: Till Bartke</b> Decoding chromatin states by proteomic profiling of modification-dependent nucleosome readers  <b>12.00-12.30: Andreas Ladurner</b> Chromatin regulation by ADP-ribosylation  <b>12.30-12.45: Short talk – Roberta Noberini</b> A histone PTM-centered, multi-OMICs approach to dissect aberrant epigenetic mechanisms in triple negative breast cancer <b>12.45-13.00: Short talk – Andrey Tvardovskiy</b> Chromatin proteomic profiling identifies NuRD as a H3K9me2-selective chromatin reader and a putative repressor of perinuclear heterochromatin
13:00 – 14:30	<i>LUNCH, MAIN RESTAURANT</i>
14:30 – 17:00	<b>SESSION 2: NUCLEAR ARCHITECTURE</b> <b>Chair: Michiel Vermeulen</b>  <b>14.30-15.15: EMBO KEYNOTE LECTURE - Ana Pombo</b> Multiome-GAM: connecting cell states with 3D genome structure

	<p><b>15.15-15.45: Nils Krietenstein</b> Investigating the dynamics of three-dimensional genome organization at the nucleosome level</p> <p><b>15.45-16.15: Wendy Bickmore</b> Enhancer-promoter communication - is close enough, enough?</p> <p><b>16.15-16.30: Short talk – Lise Dauban</b> Decoding the determinants of genome – nuclear lamina interactions by a random scrambling approach</p> <p><b>16.30-16.45: Short talk – Maria Stefanova</b> Multiscale structural role of TOP2 in chromatin organization</p> <p><b>16.45-17.15: Poster flash talks (for poster session 1)</b> Ilaria Bacchiocchi, Marco Borsò, Beyza Bozdogan, Eirini Sofia Fasouli, Viola Gilardino, Lukas Huschet</p>
17:30 onward	<b>POSTER SESSION 1</b>
19:30 onward	<i>DINNER, MAIN RESTAURANT</i>
<b>DAY 3, OCTOBER 17</b>	<b>TUESDAY</b>
8:30 – 10:30	<p><b>SESSION 3: STRUCTURAL PROTEOMICS</b> <b>Chair: Nils Krietenstein</b></p> <p><b>8.30-9.00: Hitoshi Kurumizaka</b> Structural biology of chromatin</p> <p><b>9.00-9.30: Pedro Beltrao</b> Multi-omics data integration of post-translational modification landscapes</p> <p><b>9.30-10.00: Georg Kustatscher</b> Proteome dynamics associated with chromosome condensation and genetic perturbation</p> <p><b>10.00-10.15: Short talk – Yoshimasa Takizawa</b> Structures of various chromatin units extracted from HeLa cells revealed by cryo-EM</p> <p><b>10.15-10.30: Short talk – Clarice Hong</b> Imputing cell-type specific 3D genome structure at ultra-high resolution</p>
10:30 – 11:00	<i>COFFEE BREAK</i>
11:00 – 12:50	<p><b>SESSION 4: MULTI-OMICS DATA INTEGRATION</b> <b>Chair: Constance Alabert</b></p> <p><b>11.00-11.30: Alexey Nesvizhskii</b> FragPipe: a comprehensive computational platform for proteomics, proteogenomics, and chemoproteomics</p> <p><b>11.30-12.00: Jussi Taipale</b> Towards predicting gene expression from DNA sequence</p> <p><b>12.00-12.30: Maria Colomé-Tatché</b> Single cell computational epigenomics</p> <p><b>12.30-12.50: Sponsor presentation – Ludovic Boytard, Diagenode</b> Tagmentase - Function, applications and solutions</p>

12:50 – 13:30	<b>WOMEN IN SCIENCE LECTURE: Melike Lakadamyali</b>
13:30 – 15:00	<i>LUNCH, MAIN RESTAURANT</i>
15:00 – 16.30	<b>PROBLEM SOLVING WORKSHOP</b> 1:1 speaker/participant pairs
17:00	<b><i>SOCIAL EVENT: EXCURSION TO CHANIA OLD TOWN AND DINNER IN CHANIA OLD HARBOUR</i></b>
<b>DAY 4, OCTOBER 18</b>	<b>WEDNESDAY</b>
9.00 – 10:30	<p><b>SESSION 5: QUANTITATIVE APPROACHES TO TRANSCRIPTION</b> Chair: Tuncay Baubec</p> <p><b>9.00-9.30: EMBO YIP Lecture - Tineke Lenstra</b> Understanding transcription: one molecule at a time</p> <p><b>9.30-10.00: Naama Barkai</b> How transcription factors find their binding sites in large genomes – the role of intrinsically disordered regions</p> <p><b>10.00-10.15: Short talk – Irene Zanin</b> Genome-wide mapping of i-motifs reveals their association with transcription regulation in live human cells</p> <p><b>10.15-10.30: Short talk – Antoni Gralak</b> Completing the codebook: determining the DNA binding properties of 332 poorly characterized human transcription factors</p>
10:30 – 11:00	<i>COFFEE BREAK</i>
11:00 – 12:30	<p><b>SESSION 6: CHROMATIN IN HEALTH AND DISEASE</b> Chair: Till Bartke</p> <p><b>11.00-11.30: Musa Mhlanga</b> A chromatin-regulated biphasic circuit coordinates IL1B-mediated inflammation</p> <p><b>11.30-12.00: Gernot Längst</b> Changes in adenoviral chromatin organization precede early gene activation upon infection</p> <p><b>12.00-12.15: Short talk – Maria Ramal Garcia</b> A critical role for STAG2 in maintaining urothelial cell quiescence</p> <p><b>12.15-12.30: Short talk – Nawrah Khader</b> Transcriptomic and chromatin profiles reveal global alteration patterns in the uterine smooth muscle cell genome from late gestation to labour onset</p>
12:30 – 13:15	<b>EMBO SCIENCE POLICY LECTURE: Wendy Bickmore</b> Title: “Science Funding: People and Places”
13:15 – 15:00	<i>LUNCH, MAIN RESTAURANT</i>
15:00 – 17:30	<p><b>SESSION 7: CHROMATIN &amp; METABOLISM</b> Chair: Naama Barkai</p> <p><b>15.00-15.30: Marcus Buschbeck</b> Macrodomain-containing histone variants link chromatin structure and metabolism</p> <p><b>15.30-16.00: Axel Imhof</b></p>

	<p>The role of RNA in the maintenance of chromatin domains as revealed by antibody mediated proximity labelling</p> <p><b>16.00-16.30: Nathaniel Snyder</b> Compartmentalization of coenzyme metabolism within cells</p> <p><b>16.30-16.45: Short talk – Eleftheria Chatzantonaki</b> The functional role of Polycomb-mediated chromatin architecture during neuronal development</p> <p><b>16.45-17.00: Short talk – Cosmin Tudose</b> The role of PRC2 in gene regulation and chromatin architecture in acute myeloid leukaemia</p> <p><b>17.00-17.30: Poster flash talks (for poster session 2)</b> Zuzanna Kozik, Mercedes Pardo, Fernanda Rezende Pabst, Beatrice Tosoni, Anuroop V Venkatasubramani, Aniek Verstappen</p>
17:30 onward	<b>POSTER SESSION 2</b>
19.30 onward	<i>DINNER, MAIN RESTAURANT</i>
<b>DAY 5, OCTOBER 19</b>	<b>THURSDAY</b>
8:30 – 10:30	<p><b>SESSION 8: SINGLE CELL GENOMICS &amp; PROTEOMICS</b> <b>Chair: Gaelle Legube</b></p> <p><b>8.30-9.00: Jop Kind</b> Remodeling of genome-lamina contacts is an early event during random X-chromosome inactivation</p> <p><b>9.00-9.30: Jason Derks</b> Single nuclei proteomics reveals heterogeneous protein transport in LPS-stimulated macrophages</p> <p><b>9.30-9.45: Short talk – Joyce Thompson</b> Transcription factor co-binding underlies the divergence of cell-fates from common progenitors</p> <p><b>9.45-10.00: Short talk – Wangjie Liu</b> TF-seq: untangling multifaceted programming effects of transcription factors at single-cell level</p> <p><b>10.00-10.15: Short talk – Guido van Mierlo</b> The epigenomic foundation of interindividual variation in adipogenic differentiation potency</p> <p><b>10.15-10.30: Short talk - Ourania Galanopoulou</b> “Endonucleosis”: an unusual autophagy process in senescent cells</p>
10:30 – 11:00	<i>COFFEE BREAK</i>
11:00 – 13:30	<p><b>SESSION 9: DNA REPLICATION &amp; REPAIR</b> <b>Chair: Kathryn Lilley</b></p> <p><b>11.00-11.45: UK Genetics Society Lecture - Evi Soutoglou</b> A proteomic approach to decipher DNA repair pathway choice at the nuclear periphery</p> <p><b>11.45-12.15: Gaëlle Legube</b> Chromosome and chromatin dynamics at DNA double strand breaks</p> <p><b>12.15-12.45: Constance Alabert</b> Mechanisms of DNA replication in the context of chromatin</p> <p><b>12.45-13.00: Short talk – Mamantia Constantinou</b></p>

	<p>Histone acetyltransferase Nat4 is a new player in the DNA damage response in <i>S. cerevisiae</i></p> <p><b>13.00-13.15: Short talk – Stuart Fulton</b> Single molecule investigation of RNA quality control mechanisms at nucleotide resolution</p> <p><b>13.15-13.30: Short talk – Tina Karagyzova</b> HIRA-mediated H3.3 deposition impact on 3D genome organization and early replication</p>
13:30 – 15:00	<i>LUNCH, MAIN RESTAURANT</i>
15:00 – 17:00	<p><b>SESSION 10: SPATIAL &amp; INTERACTION PROTEOMICS</b> <b>Chair: Axel Imhof</b></p> <p><b>15.00-15.30: Michiel Vermeulen</b> Deciphering gene expression regulation in health and disease using integrative omics approaches</p> <p><b>15.30-16.00: Kathryn Lilley</b> The orchestration of subcellular processes through RNA and protein interactions</p> <p><b>16.00-16.30: Jean-Philippe Lambert</b> Mapping chromatin structure and function with interaction proteomics</p> <p><b>16.30-16.45: Short talk – Sylvain Audibert</b> The proteome of the nuclear periphery in the absence and presence of DNA damage</p> <p><b>16.45-17.00: Short talk – Aniek Martens</b> Exploring the m<sup>6</sup>A landscape in blood cell differentiation through interaction proteomics</p>
17:00 – 17:30	<i>BREAK</i>
17:30 – 18:15	<p><b>OPEN DISCUSSION: Current and future challenges in nuclear biology</b> <b>Moderator: Axel Imhof</b></p>
18:15 – 18:30	<p><b>BEST PRESENTATION &amp; POSTER PRIZE AWARDS</b> <b>CLOSING REMARKS: Organizing Committee</b></p>
19:00	<i>DINNER, MAIN RESTAURANT</i>
<b>DAY 6, OCTOBER 20</b>	<b>FRIDAY</b>
	<i>BREAKFAST AND DEPARTURE</i>