WHO…

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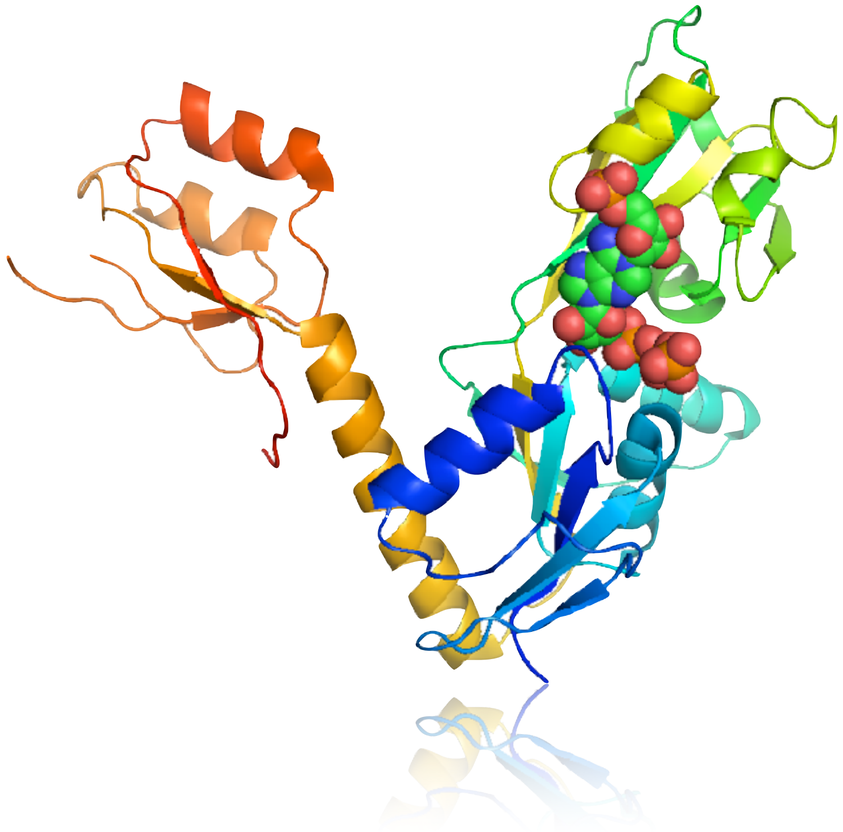

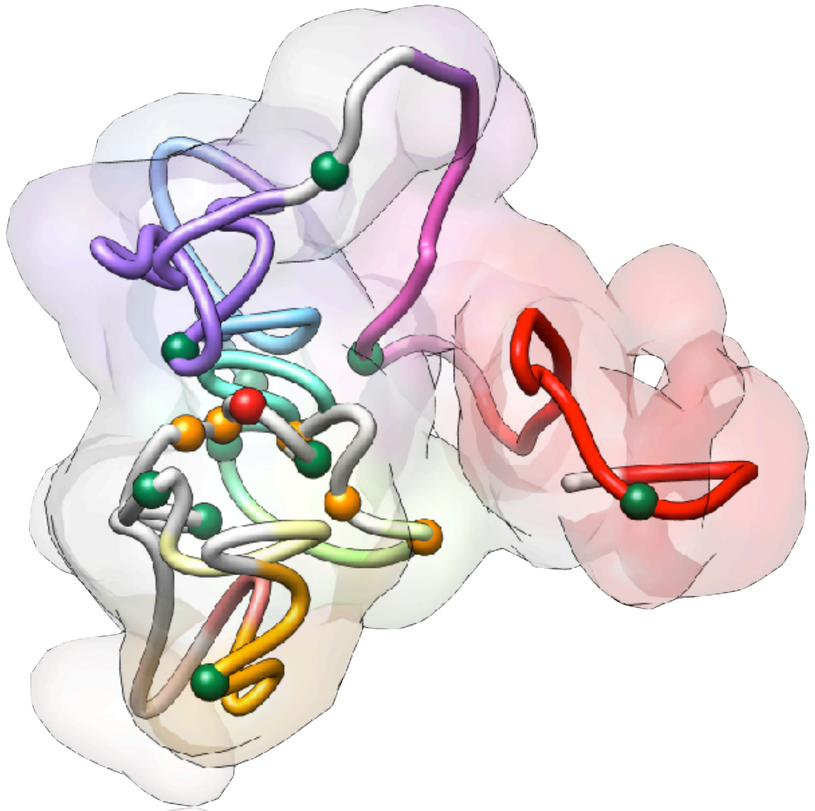

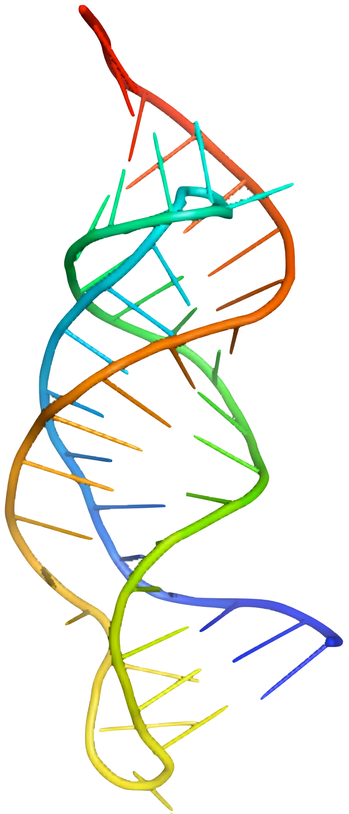

Course outline (online version!)

Day #1	
10:00 - 10:15	Welcome and introduction (Marc)
10:15 - 10:45	Overview on structure determination (Marc)
10:45 - 11:00	Break
11:00 - 11:30	Overview of 3D genomes (Marc)
11:30 - 12:00	Break
12:00 - 13:00	Live Introduction to Linux and working environment (David/Marco)
13:00 - 16:30 **Videos** **Notebooks**	Introduction to TADbit and data handling for 3C-based experiments (12 minutes) From raw data to Hi-C contact matrices (XX minutes) 01-Inspect_Hi-C_input_data.ipynb 02-Generate_mapper_index.ipynb 03-Hi-C_Quality_Check.ipynb 04-Mapping.ipynb 05-Parsing.ipynb
16:30 - 17:30	Live Discussion
Day #2	
9:30 - 10:00	Live Discussion
10:00 - 10:30	Chromatin structure and 3C data (Marc)
10:30 - 10:45	Break
10:45 - 11:30	Integrative modeling applied to chromatin (Marc)
11:30 - 16:30 **Videos** **Notebooks**	Hi-C contact matrices: filtering and normalization (XX minutes) Biological applications I: TAD response to hormone treatment) (26 minutes) Biological applications II: SOX2 gene activation dynamics) (26 minutes) 06-Intersecting_and_Filtering_mapped_reads.ipynb 07-Bin_filtering_and_normalization.ipynb 08a-Compartments_detection.ipynb
16:30 - 17:30	Live discussion
Day #3	
9:30 - 10:00	Live Discussion
10:00 - 16:30 **Videos** **Notebooks**	Comparison between experiments (XX minutes) Biological applications: III: IMGR, combining image and Hi-C data for modeling) (24 minutes) 08b-TADs_detection.ipynb 09-Compare_and_merge_Hi-C_experiments.ipynb 09b_CHESS_Compare_chromatin_contact_data.ipynb 10-Modeling_parameters_optimization.ipynb 11-3D_Models_production_and_analysis.ipynb 12-3D_Modeling_molecular_dynamics_TADdyn.ipynb
16:30 - 17:30	Live discussion and farewell

Live presentation

Around the table…

http://marciuslab.org
http://3DGenomes.org

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