GREEKC MEETING 23-24 October, 2017 - Lisbon:

Agenda

Design of an interoperable Gene Regulation Knowledge Commons

Abstract

The general goal of the Lisbon meeting (workshop + training) is to develop models for the representation of data knowledge about gene regulation in the broad sense (transcriptional regulation and upstream signalling, networks), and to establish links between existing European resources related to this topic (databases and analysis tools).

In the **Workshop**, producers and users of Gene Regulation Knowledge Commons resources will assess the state of the art in curation, representation, archiving, and sharing of information about gene regulatory processes, as well as its subsequent use in computational biology applications, in particular the development of computer models for regulatory process simulations. Discussions will focus on the breadth of information types that need to be annotated with the help of ontologies, and to what extent ontologies, representation formats and data exchange mechanisms are mature enough to establish an interconnected, interoperable information pipeline that satisfies end users.

The workshop will be followed by a **Training-hackathon event,** regrouping experts of the two respective fields (knowledge representation and gene regulation), and will be addressed to PhD students and postdocs working in these respective fields. The training will be based on presentations and practicals about (1) standards for knowledge representation and interoperability; (2) resources about gene regulation. The hackathon sessions will aim at putting the interoperability concept in practice by implementing them for selected resources on gene regulation.

Day 1 - 23/10/2017:

Main Event: Link Consulting AS		
Session 1: Management Committee meeting		
9:00 – 11:00	Review of current activities, future plans Mandate of Core Group Additional WG Co-leaders The website The Ljubljana meeting (brief scaffold needed) Any other business (based on agenda announcement)	Martin Kuiper (MK)
11:00 - 11:15	Coffee break	
Session 2: Workshop Kick-off		
11:15 – 12:00	Actions initiated at the Malta meeting and how they set the stage for the Lisbon workshop	Martin Kuiper (MK)
	GRO follow-up	Jesualdo Fernandez Breis (JT) Stefan Schulz (SS)
	NTNU's DbTF curations; TF-TG representations in current resources	Astrid Lægrid (AL)
	Text mining	Fabio Rinaldi (FR)
	CausalTAB	Sandra Orchard (SO)
	Expectations for this workshop	Martin Kuiper (MK)
Session 3: Needs of Users of the Gene Regulation Knowledge Commons: computational biologists, tool builders, systems modellers		
12:00 – 12:45	Challenges in building a TF - TG regulatory network	Luz Garcia Alonso (LGA)
	From modelling by reading to modelling by accessing databases	Claudine Chaouiya (CC)
12:45 – 14:15	Lunch	
14:15 – 15:00	DNA centric annotation - what do we need, for what	Colin Logie (CL)

	ENSEMBL annotations today and tomorrow	Toby Hunt (TH)
Session 4: Defining concepts essential to Gene Regulation		
15:00 – 16:00	Survey of the Gene Regulation component and relation space	Jacques van Helden (JVH)
	Sequence motifs: tilting bricks of the yellow brick road to gene regulation knowledge	Ivan Kulakovskiy (IK)
	GRO Deconstruction: Filling gaps in GRKC coverage by "living" ontologies	Stefan Schulz (SS)
16:00 - 16:30	Coffee Break	
19:30 - 20:30	Social event: walking tour of the center	
20:30	Dinner	

Day 2 - 24/10/2017:

Main Event: Link Consulting AS		
Session 1: Vision of Producers of the KC: curators, database managers, ontologists, text miners		
09:00 - 12:45	Perspectives of GO for covering the GRKC needs	Ruth Lovering (RL)
	Perspectives of PSICQUIC for sharing the GRKC	Noemi Del Toro (NT)
	Curating contextual knowledge: what are the limits	Steven Vercruysse (SV)
	Noctua/GO-CAM (Gene Ontology Causal Activity Model)	Astrid Lægrid (AL)
11:00 - 11:15	**Coffee Break**	
12:45 – 14:15	**Lunch**	
14:15 – 16:30	Break-out discussions, Action points	
	What are the essentials and what are nice-to-haves for GRKC?	Astrid Lægrid (AL)
	What needs to be in place to accommodate the GRKC?	Stefan Schulz (SS) Jesualdo Tomás Fernández Breis (JT)
	To what extent are databases and tools interoperable, and how can interoperability be warranted given the future development of the GRKC?	Sandra Orchard (SO)
15:30 - 15:45	**Coffee Break**	
16:30 - 17:30	Wrap up	