

Centre for mRNA Biogenesis and Metabolism and the European Science Foundation proudly presents minisymposium on:



RNA Biogenesis and Quality Control



September the 18th, 2007, Lakeside Lecture Theatre, Aud. 4, University of Aarhus

9.00-9.10: Welcome and Introduction by **Torben Heick Jensen**

Transcription/ mRNA processing/ mRNP formation

9.10-9.30: "Interconnecting transcription, RNA processing and gene structure in eukaryotes"

Nick Proudfoot, Oxford University

9.30-9.50: "A new connection of mRNP biogenesis and export with transcription-coupled repair"

Hélène Gaillard, Universidad de Sevilla

9.50-10.10: "Growth control and coordination of transcription in ribosome biogenesis"

David Shore, University of Geneva

10.10-10.30: "Crystal structure of EJC in the ADPNP or ADP-A1F3 (transition state)"

Klaus Hvid Nielsen, University of Aarhus

10.30-10.50: **Coffee Break**

Quality control of RNA polymerase II transcripts

10.50-11.10: "Mechanisms for recruitment of the exosome to transcribed genes"

Neus Visa, Stockholm University

11.10-11.30: "Nuclear mRNA surveillance: A fine balance between polyadenylation and decay"

Torben Heick Jensen, University of Aarhus

11.30-11.50: "Measuring genes through phosphorylation of RNA polymerase CTD: position-dependent termination of CUTs"

Domenico Libri, CNRS, Gif sur Yvette, Paris

11.50-12.10: "A robust 3' Long SAGE genomic approach: application to CUTs analysis"

Alain Jacquier, CNRS, Institut Pasteur, Paris

12.10-14.00 **Lunch break**

Regulation by small non-coding RNAs

14.00-14.20: "Multiple target regulation by Salmonella small RNAs"

Joerg Vogel, Max Planck Institute, Berlin

14.20-14.40: "The role of Drosha in the miRNA early processing events"

Monica Ballerino, La Sapienza, Rome

14.40-15.00: "Getting quantitative with RNA processing"

David Tollervey, University of Edinburgh

15.00-15.20: **Coffee Break**

The RNA degradation machinery

15.20-15.40: "Unraveling the mechanism of RNA degradation by RNase II"

Carlos Frazao, Universidade Nova de Lisboa

15.40-16.00: "Structure and activity of the exosome complex"

Andrzej Dziembowski, Warsaw University

16.00-16.20: "Structural and functional studies of yeast RNA degradation enzymes"

Ditlev Brodersen, University of Aarhus

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**Summary of Symposium on: *RNA Biogenesis and Quality Control* at Aarhus University
September 18, 2007 (see attached program).**

RNA biogenesis and quality control thereof has recently arisen as an important field of research. Surprisingly eukaryotic cells degrade the majority of RNA produced, and a considerable portion of discarded species are turned over by quality control machineries. The importance of such control is exemplified by studies reporting clinical manifestations of failure to execute adequate RNA surveillance. Thus, the topic is timely and the time is ripe to establish solid links between relevant European research laboratories.

At the Symposium, both structural and functional aspects of RNA biogenesis and quality control were addressed; as was the issue in both procaryotic and eukaryotic cells.

The symposium was initiated to provide an efficient platform for establishing collaborations across individual CRPs within the RNAQuality program, and moreover, begin to establish links to laboratories within the EuroDYNA program.

The symposium brought together participants of two different CRPs of the RNA Quality program as well as Dr. David Shore, a participant of the EuroDYNA program. In addition, four external experts on the topic were invited to talk.

The symposium was attended by app. 200 people: Students and postdocs from the participating speakers laboratories as well as employees of Danish Universities with an interest in the topic.

During the coffee and lunch breaks and at the nightly dinner a vivid discussion arose between CRP VIPs and attending PhD students and postdocs. Scientific issues as well as possibilities for mobility between laboratories were discussed and the ground was laid for actual plans.

It is also our hope that the minisymposium will raise the general awareness of the topic to the invited external speakers. The scientific programs of these border that of RNAQuality and thus have the potential to become tighter linked in the future.