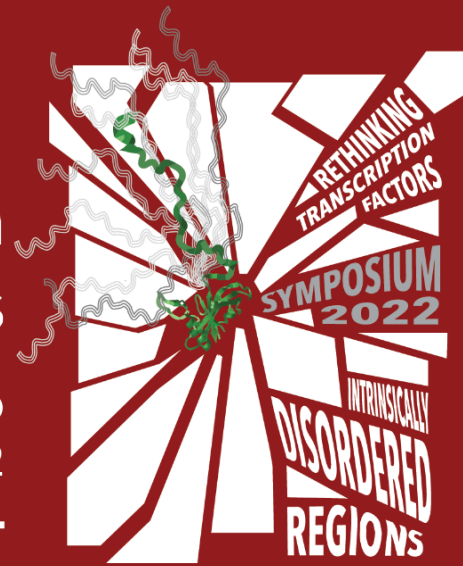


NNF Symposium Rethinking Transcription Factors

NNF Foundation, Tuborg Havnevej 19, Hellerup
24-26/8 – 2022



DAY 1 WEDNESDAY 24

8.00 – 8.30 Registration and light breakfast

8.30 – 8.35 Welcome by the Novo Nordisk Foundation

8.35 – 8.40 Welcome by REPIN

8.40 – 10.25 STRUCTURAL ENSEMBLES AND MECHANISMS

Chair Birthe B. Kragelund

8.40 – 9.15 **Peter E. Wright**, The Scripps Research Institute, La Jolla, CA: *Regulation of transcription by posttranslational modification of disordered domains*

9.15 - 9.25 Discussion

9.25 – 9.40 **Young scientist Mark Driver**, University of Groningen, NL: *Elucidating transcription condensate selectivity: a molecular dynamics approach*

9.40 - 9.45 Discussion

9.45 – 10.15 **Per Jemth**, Uppsala University, Uppsala, SE: *Probing protein-protein interactions using an evolutionary approach*

10.15 - 10.25 Discussion

10.25 – 10.50 *Coffee break*

10.50 – 12.35 COMPLEXES AND FLEXIBILITY IN COMPLEXES

Chair Birthe B. Kragelund

10.50 – 11.20 **Yuan He**, Northwestern University, Evanston, IL: *Structural visualization of chromatin regulatory complexes using cryo-EM*

11.20 - 11.30 Discussion



- 11.30 – 11.50 **Pétur Orri Heiðarsson**, University of Iceland, Reykjavík, IS: *Disordered domains of pioneer transcription factors in chromatin invading and opening*
- 11.50 - 11.55 Discussion
- 11.55 – 12.25 **Rachel E. Klevit**, University of Washington, Seattle, WA: *Structure/Not Structure: From Fingers to Fuzz*
- 12.25 - 12.35 Discussion

12.35 – 13.25 **Lunch**

13.25 – 14.55 **DNA-BINDING AND GENE SPECIFICITY**

Chair Karen Skriver

- 13.25 – 14.05 **Naama Barkai**, Weizmann Institute of Science, IL: *How transcription-factor recognized their binding sites within large genomes*
- 14.05 - 14.15 Discussion
- 14.15 – 14.45 **Steven Hahn**, Fred Hutchinson Cancer Research Center, Seattle, WA: *Transcription coactivator mechanisms and gene specificity*
- 14.45 - 14.55 Discussion

14.55 – 16.25 **Coffee and POSTER SESSION I**

16.25 – 17.05 **EMERGING TECHNIQUES AND METHODS**

Chair Karen Skriver

- 16.25 – 16.55 **Gijs Wuite**, Vrije Universiteit Amsterdam, NL: *Frontiers in Single Molecule manipulation and imaging of DNA-protein transactions*
- 16.55 - 17.05 Discussion

17:05 – 18:00 **Reception**



DAY 2 THURSDAY 25

8.00 – 8.30 Light breakfast

8.30 – 9.50 DETERMINANTS OF ACTIVATION DOMAINS

Chair **Kresten Lindorff Larsen**

8.30 – 9.00 **Max Staller**, University of California, Berkeley, CA: *Sequence features of transcriptional activation domains*

9.00 - 9.10 Discussion

9.10 – 9.40 **Xavier Salvatella**, IRB Barcelona, Barcelona, ES: *Decoding the sequence determinants of activation domains in transcription factors*

9.40 - 9.50 Discussion

9.50 – 10.10 Coffee break

10.10 – 12.10 (ALLOSTERIC) REGULATION IN DNA-BINDING

Chair **Kresten Lindorff Larsen**

10.10 – 10.40 **Hagen Hofmann**, Weizmann Institute of Science, IL: *Rethinking DNA - A phenotype switch driven by DNA-mediated allostery*

10.40 - 10.50 Discussion

10.50 – 11.20 **Elisar Barbar**, Oregon State University, Corvallis, OR: *Protein disorder in transcription factors and gene silencing regulation*

11.20 - 11.30 Discussion

11.30 – 12.00 **Alexandre M. Erkine**, Butler University, Indianapolis, IN: *Surfactant mechanism of eukaryotic gene activation*

12.00 - 12.05 Discussion

12.05 – 13.00 Lunch

13.00 – 14.20 DISORDER IN BINDING AND REGULATION

Chair **Rasmus Hartmann Petersen**

13:00 – 13:30 **Sarah Shammas**, University of Oxford, Oxford, UK: *Roles of protein disorder in DNA binding domains*

13.30 - 13.40 Discussion

13.40 – 14.10 **Robert O.J. Weinzierl**, Imperial College London, London, UK: *Understanding structure/function relationship in the intrinsically disordered MYC oncoprotein through combined experimental and computational approaches*

14.10 - 14.20 Discussion



14:20 – 16:00 *Coffee and poster session II*

16.00 – 18.00 COMPLEXES, NETWORKS AND REGULATION

Chair Rasmus Hartmann Petersen

- 16.00 – 16.30 **Jesper Svejstrup**, University of Copenhagen, Copenhagen, DK:
Rethinking RNA polymerase II, the ultimate transcription factor
- 16.30 - 16.40 Discussion
- 16.40 – 17.10 **M. Madan Babu**, St. Jude Children's Research Hospital, Memphis,
TN: *Systems approaches to studying the role of IDRs in
transcriptional regulation of gene expression*
- 17.10 - 17.20 Discussion
- 17.20 – 17.50 **Vaclav Veverka**, Institute of Organic Chemistry and Biochemistry,
AS CR, Prague, CZ: *The role of IDP regions in nucleosome
recognition*
- 17.50 - 18.00 Discussion



DAY 3 FRIDAY 26

8:00 – 8:30 Light breakfast

8.30 – 9.35 DRUG AND DESIGN

Chair Ben Schuler

- 8.30 – 9.00 **Sarah Bondos**, Texas A&M Health Science Center, Bryan, TX:
Shape-shifting disorder to regulate and diversify transcription factor function
- 9.00 - 9.10 Discussion
- 9.10 – 9.30 **Joe Rogers**, University of Copenhagen, Copenhagen, DK:
Rethinking the drug potential of peptides
- 9.30 - 9.35 Discussion

9.35 – 10:10 Coffee break

10.10 – 12.10 CONDENSATES IN TRANSCRIPTIONAL REGULATION

Chair Ben Schuler

- 10.10 – 10.40 **Lucia C. Strader**, Duke University, Durham, NC: *Transcription factor condensation attenuates activity and rewires gene expression*
- 10.40 - 10.50 Discussion
- 10.50 – 11.20 **Jurian Schuijers**, UMC Utrecht, NL: *Targeted perturbation of signaling-driven transcriptional condensates*
- 11.20 - 11.30 Discussion
- 11.30 – 12.00 **Tanja Mittag**, St. Jude Children's Research Hospital, Memphis, TN
Transcriptional hubs: Biomolecular condensates or higher-order complexes?
- 12.00 - 12.10 Discussion

12:10 – 13.00 Wrap up and goodbye