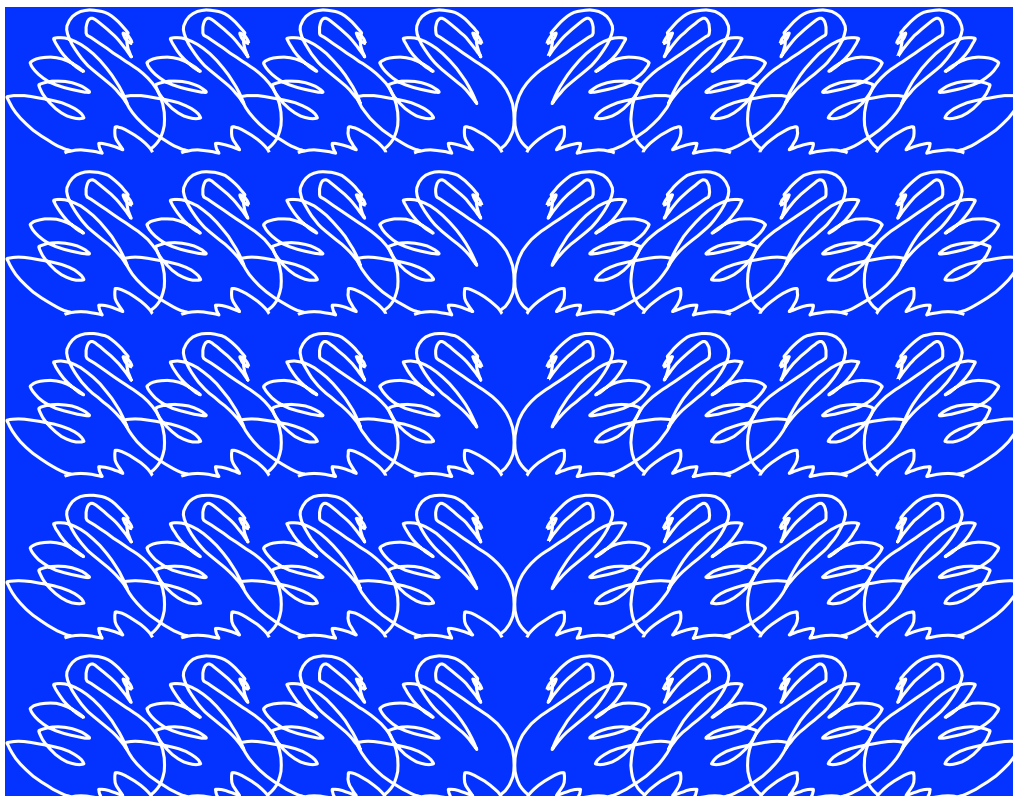




**BENZON SYMPOSIUM**  
**No. 62**  
**GENOME INSTABILITY AND NEURODEGENERATION**

**AUGUST 22-25, 2016**  
**COPENHAGEN, DENMARK**

**APP AVAILABLE FOR DOWNLOAD: SEARCH FOR BENZON  
SYMPOSIUM NO. 62**



**Organizing committee:**

Lene Juel Rasmussen (Copenhagen), Ian D. Hickson (Copenhagen), Niels Borregaard  
(Copenhagen), and  
Finn Cilius Nielsen (Copenhagen)



## MONDAY, AUGUST 22, 2016

- 09:00-09:05 Welcome
- Opening Keynote Lecture**  
*Chair* **Lene Juel Rasmussen**
- 09:05-09:55 **Matthias Mann:** Mass spectrometry-based proteomics in cell biology and biomedicine  
09:55-10:05 Discussion
- Session I**  
*Chair* **Epidemiology of aging and neurodegeneration**  
*Lene Juel Rasmussen*
- 10:05-10:35 **Nir Barzilai:** Targeting the Biology of Aging to Prevent Neurodegenerative diseases  
10:35-10:45 Discussion
- 10:45-11:15 **Coffee Break**
- 11:15-11:45 **Kaare Christensen:** Aging and Neurodegeneration in the Oldest-Old  
11:45-11:55 Discussion
- 11:55-12:05 **Rudi Westendorp:** Flow in Old Age (*Poster number I-1*)  
12:05-12:10 Discussion
- 12:10-13:10 **LUNCH**
- Session II**  
*Chair* **The basic biology of DNA damage and repair in brain I**  
*Björn Schumacher*
- 13:10-13:40 **Judith Campisi:** Cellular senescence links the DNA damage response to tissue degeneration  
13:40-13:50 Discussion
- 13:50-14:20 **Yosef Shiloh:** Linking ATM Functions to the Cerebellar Degeneration in Ataxia-Telangiectasia  
14:20-14:30 Discussion
- 14:30-14:40 **Daryl Shanley:** Computational modelling the cellular response to DNA damage: short term dynamics and long term consequences (*Poster number I-2*)  
14:40-14:45 Discussion
- 14:45-15:15 **Coffee Break**
- 15:15-15:45 **Lene Juel Rasmussen:** Mitochondrial function regulates nucleotide metabolism and affects genomic stability: mechanisms and biomarker for cognitive function  
15:45-15:55 Discussion
- 15:55-16:05 **Victoria Meltser:** Specific accumulation of p73 protein in irradiation-induced micronuclei (*Poster number I-3*)  
16:05-16:10 Discussion
- 16:10-18:25 Authors present posters Nos. I-1 to I-9
- 19:30-21:30 **Reception at Café Mazzolis in Tivoli (old amusement park)**  
(walking time from hotel to Tivoli is about 15 min.)



## TUESDAY, AUGUST 23 2016

- Session III*      ***The basic biology of DNA damage and repair in brain II***  
*Chair*            *Jan Vijg*
- 09:00-09:30    ***Ian D. Hickson***: Molecular Basis of Chromosome Fragility  
09:30-09:40    Discussion
- 09:40-10:10    ***Keith Caldecott***: DNA Single-Strand Break Repair and Human Neurological Disease  
10:10-10:20    Discussion
- 10:20-10:50    **Coffee Break**
- 10:50-11:20    ***Björn Schumacher***: DNA damage responses in ageing and disease: an organismal perspective  
11:20-11:30    Discussion
- 11:30-11:40    ***Sherif El-Khamisy***: Defective chromosomal break repair in spinal muscular atrophy (*Poster number II-1*)  
11:40-11:45    Discussion
- 11:45-11:55    ***Victoria Alexandra Bjerregaard***: Folic Acid Deficiency Induces Anaphase DNA Bridges At The Fragile X Locus (*Poster number II-2*)  
11:55-12:00    Discussion
- 12:00-13:00    **LUNCH**
- Session IV*      ***Homeostasis in brain I***  
*Chair:*            *Vilhelm Bohr*
- 13:00-13:30    ***Karl Herrup***: ATM and ATR in neurons -- functions beyond the DNA damage response  
13:30-13:40    Discussion
- 13:40-14:10    ***Jan Vijg***: Genome instability: a conserved mechanism of aging?  
14:10-14:20    Discussion
- 14:20-14:30    ***Thomas Kirkwood***: Aging, damage and repair: how complicated can it be? (*Poster number II-3*)  
14:30-14:35    Discussion
- 14:35-15:00    **Coffee Break**
- 15:00-15:30    ***Karl Deisseroth***: Integrated brainwide structural and functional analysis  
15:30-15:40    Discussion
- 15:40-15:50    ***Tinna Stevnsner***: Regulation of base excision repair in the aging human brain (*Poster number II-4*)  
15:50-15:55    Discussion
- 15:55-16:05    ***Claus Desler***: Increased deoxythymidine triphosphate levels is a feature of relative cognitive decline (*Poster number II-5*)  
16:05-16:10    Discussion
- 16:10-18:00    Authors present posters Nos. II-1 to II-15



## WEDNESDAY, AUGUST 24, 2016

### *Session V*      ***Homeostasis in brain II***

*Chair*              *Jan Hoeijmakers*

09:00-09:30      ***Vilhelm Bohr***: Nuclear to Mitochondrial DNA damage signaling in Neurodegeneration  
09:30-09:40      Discussion

09:40-10:10      ***Nils-Göran Larsson***: The role of Mitochondria in Parkinson's disease  
10:10-10:20      Discussion

10:20-10:50      **Coffee Break**

### *Session VI*      ***The pathogenesis of neurodegenerative disorders I***

*Chair*              *Nathaniel Heintz*

10:50-11:20      ***Tony Wyss-Coray***: Systemic regulation of brain aging and plasticity  
11:20-11:30      Discussion

11:30-11:40      ***Kanagaraj Radhakrishnan***: Resolving RNA-DNA Damage-Induced Genomic Instability:  
Where There Is SETX, There Is a Way (*Poster number III-1*)  
11:40-11:45      Discussion

11:45-11:55      ***Hana Hanzlikova***: XRCC1 Mutations in Human Neurological Disease  
(*Poster number III-2*)  
11:55-12:00      Discussion

12:00-13:00      **LUNCH**

*Chair:*              *Karl Herrup*

13:00-13:30      ***Hongjun Song***: Dynamic DNA demethylation via base-excision repair regulates neuronal  
flexibility

13:30-13:40      Discussion

13:40-14:10      ***Andre Nussenzweig***: The role of DNA breaks in neuronal gene expression determined by  
END-seq

14:10-14:20      Discussion

14:20-14:30      ***Rami Aqeilan***: Role of tumour suppressor WWOX, gene product of a common fragile site,  
in brain development and neurodegeneration (*Poster number III-3*)

14:30-14:35      Discussion

14:35-15:00      **Coffee Break**

15:00-15:30      ***Cynthia McMurray***: Age-dependent expansion in human Huntington Disease: from  
genetics to metabolism

15:30-15:40      Discussion

15:40-15:50      ***Morten Scheibye-Knudsen***: Neurodegeneration in Accelerated Aging  
(*Poster number III-4*)

15:50-15:55      Discussion

15:55-16:05      ***Meryl Sønderby Lillenes***: Altered DNA base excision repair profile in brain tissue and  
blood in Alzheimer's disease (*Poster number III-5*)

15:05-16:10      Discussion



16:10-17:40 Authors present posters Nos III-1 to III-19

19:30-23:30 **Banquet at The University of Copenhagen**  
(walk 19:25; time from hotel to University is about 3 min.)

**THURSDAY, AUGUST 25, 2016**



*Session VII      **The pathogenesis of neurodegenerative disorders II***

*Chair                      Cynthia McMurray*

09:00-09:30      **Nathaniel Heintz:** Exploring the Molecular Landscapes of CNS Cell Types: 5hmC, MeCP2 and Stabilization of Neuronal Phenotypes

09:30-09:40      Discussion

09:40-10:10      **Martin Lavin:** Role of oxidative stress in the ataxia-telangiectasia phenotype

10:10-10:20      Discussion

10:20-10:50      **Coffee Break**

10:50-11:00      **Tone Tønjum:** On the Brain-Gut axis: Differential expression of DNA repair pathways in human brain and mucosal gut tissue (*Poster number III-6*)

11:05-11:05      Discussion

11:05-11:15      **Cecilie Morland:** A novel mechanism for exercise-induced angiogenesis in the brain (*Poster number III-7*)

11:15-11:20      Discussion

11:20-11:50      **Maiken Nedergaard:** The glymphatic system and its importance in amyloid clearance

11:50-12:00      Discussion

12:00-13:00      **LUNCH**

*Chair                      Ian D. Hickson*

13:00-13:30      **Zhao-Qi Wang:** Canonical and non-canonical functions of DDR molecules in neuro(de)generation

13:30-13:40      Discussion

13:40-14:10      **Peter McKinnon:** Maintaining genome stability in the nervous system

14:10-14:20      Discussion

14:20-14:50      **Coffee Break**

14:50-15:00      **Nabieh Ayoub:** NELF-E Facilitates Transcription Silencing at DNA Double-Strand Breaks and Promotes DNA Repair (*Poster number III-8*)

15:00-15:05      Discussion

15:05-15:15      **Pier Giorgio Mastroberardino:** Inefficient DNA repair is an aging-related modifier of Parkinson's disease (*Poster number III-9*)

15:15-15:20      Discussion

***Final Keynote Lecture***

15:20-16:20      **Jan Hoeijmakers:** The impact of DNA damage on neurodegeneration and the potential of nutritional interventions

16:20-16:30      Discussion

16:30-16:40      Concluding Remarks



**RECEPTION  
MONDAY, AUGUST 22, 2016  
(19:30-21:30)**

**PARTICIPANTS, INVITED SPEAKERS  
AND ACCOMPANYING PERSONS**

The reception will be held at **Café Mazzolis** located in **Tivoli**, the old amusement park.

Situated in Tivoli Gardens in the city center, the building in which Café Mazzolis is located has – at times – been Tivoli's ball room, the hippodrome and confectioner's tea room – since it was built in 1883.

The elegant architecture of the facade has been preserved while inside the restaurant is characterized by modern Scandinavian design as a counterpoint to the period exterior. In the same vein, the modern, Italian inspired cuisine can be enjoyed against the traditional background of a wonderful view of the Tivoli Lake and Promenade.

Dress code: Smart casual.



*No transportation will be provided for this event.  
A group will assemble in the lobby and walk from the hotel to  
Café Mazzolis at 19:15*



**BANQUET**  
**WEDNESDAY, AUGUST 24, 2016**  
**(19:30-23:00)**

**PARTICIPANTS, INVITED SPEAKERS**  
**AND ACCOMPANYING PERSONS**

The banquet will take place at **The University of Copenhagen Ceremonial Hall** located at Vor Frue Plads, 1017 Copenhagen K.

The University is situated right across from the cathedral of Copenhagen, Vor Frue (Church of our Lady). The University was established more than 500 years ago, in 1479, but the present buildings are from the 19<sup>th</sup> century. With its more than 530 years, the University of Copenhagen is one of the oldest universities in Northern Europe. Being the largest institution of education and research in Denmark, the University has gone through numerous changes through the ages.



We are proud to hold the banquet in one of the city's most beautiful rooms, the University of Copenhagen Ceremonial Hall. The building was opened in 1836, but not until 60 years later was the decoration of the rooms finished. The Ceremonial Hall is decorated with paintings showing the University's history, an example is Wilhelm Marstrand's painting from 1871 showing the University's inauguration in 1479.

Dress code: Smart (Jacket, tie not required).



*No transportation will be provided for this event.*  
*A group will assemble in the lobby and walk from the hotel to the University at 19:25.*

Website: [www.benzon-foundation.dk](http://www.benzon-foundation.dk)