

2018 IUBMB SEOUL

24th IUBMB Congress & 15th FAOBMB Congress
June 4 (Mon) - 8 (Fri), 2018 | COEX, Seoul, Korea
Integrating Science for Bio-Health Innovation

IMPORTANT NOTICE

The IUBMB SEOUL Travel Grant Application and Abstract Submission deadline has been extended to **April 3(Tue), 2018**.

[FAOBMB] Osamu Havaishi Lecture



Vilhelm Alfred Bohr

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Nuclear to Mitochondrial DNA Damage Signaling in Neurodegeneration and Aging

We find that some DNA repair defective diseases with severe neurodegeneration have mitochondrial defects. Our studies involve cell lines, the worm (*C. elegans*), and mouse models and include the conditions Xeroderma pigmentosum group A, Cockayne syndrome and Ataxia telangiectasia. We find a pattern of hyperphosphorylation, deficiency in the NAD⁺ and Sirtuin signaling and mitochondrial stress. We are pursuing mechanistic studies of this signaling and interventions at different steps to improve mitochondrial health and the neurodegeneration. I will discuss intervention studies in these diseases models including a new Alzheimer mouse model with NAD supplementation. NAD supplementation stimulates mitochondrial functions including mitophagy and stimulates DNA repair pathways. In AT cells, mice and nematode worms, base excision repair is stimulated. This also happens in an Alzheimer's mouse deficient in DNA polymerase β , and this will be discussed. DNA Pol β affects mitochondrial functions via its nuclear role, and via a newly identified role in mitochondrial DNA repair.

KEY DATES

- APRIL 3 (TUE), 2018
 - Abstract Submission Closes
 - Travel Grant Application Closes
 - Early Bird Registration Closes
- MAY 3 (THU), 2018
 - Regular Registration Closes

For more information, please visit the conference website.

www.iubmb2018.org