



CERTIFICATE OF PARTICIPATION

This is to certify that

Arpad Varga

attended the 18th Symposium of Biology Students in Europe, SymBioSE 2015, that was held between the 23rd and the 31st of July 2015 in the department of Molecular Biology and Genetics of the Democritus University of Thrace, in Alexandroupoli, Greece.

The organizers

Vasiliki Garefalaki

Genovefa Bouraki



AWARD

Awarded to undergraduate student

Arpad Varga

for outstanding oral presentation at the 18th Symposium of Biology Students in Europe, SymBioSE 2015, that was held between the 23rd and the 31st of July 2015 at the department of Molecular Biology and Genetics of the Democritus University of Thrace, in Alexandroupoli, Greece.

The organizers

Vasiliki Garefalaki

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GREECE 2015

18th

**Symposium
for Biology Students
in Europe**



23-31 July 2015 Alexandroupoli

**ABSTRACT
BOOK**

A faint, stylized illustration of a DNA double helix structure serves as a background for the bottom half of the cover.

Cloning of an engineered histone cluster in *Drosophila melanogaster*

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University of Szeged, Hungary, Faculty of Science and Informatics, Dept. Biochemistry
and Molecular Biology

Genome Integrity and DNA Repair Group

Unrepaired DNA damages could lead to cancer formation. To allow repair of these damages, the repair proteins must assess the damage site, so the condensed DNA needs to be looser. Our group is interested in to understand chromatin changes during DNA repair processes by using novel experimental system.

In eukaryotic cells the nucleus contains highly condensed DNA. The base of the chromatin structure is the evolutionarily conserved histone protein family. The histone proteins necessary for nucleosome assembly by forming a heterooctamer with two copies of H2A, H2B, H3 and H4. Finally the linker histone H1 requires for the proper chromatin condensation. All of the histone proteins can be post-translationally modified. These PTMs are the main rulers of epigenetic regulation. Processes using DNA as a template (transcription, replication and DNA repair) are greatly affected by the chromatin structure. Unimproved breaks lead genome instability or translocations which easily results tumor formation. Our aim is to understand how does the chromatin structure change around the break during the DNA repair and what is the link between unique histone PTMs and the mechanisms of the repair. We plan to set up an experimental system by which we will be able to study how do unique histone modifications affect the DSB repair. The advantage of this new experimental system is the clone of the histone cluster which contains all of the canonic (H2A, H2B, H3, H4) and linker (H1) histone genes in *Drosophila melanogaster*.

Thu 30.07		
06:00-07:00	Wake up & Breakfast	
07:00-08:30	Transfer by bus	
08:30-14:30	Excursion to Dadia Forest	Dadia forest
14:30-16:30	Transfer by bus	
16:30-18:00	Country proposals for 2016 & 2017 organization	Kappadokiki Estia
18:00-19:30	General assembly & voting	
19:30-20:30	Dinner	
20:30-21:30	Greek presentation	
21:30-22:00	Awards	
22:00-22:30	Transfer on foot	
22:30-∞	Farewell party	
Fri 31.07		
08:00-09:00	Wake up & Breakfast	
09:00-11:30	Check-out & Departure	

Student presentations Group 1	
10:00-10:15	Paula Diaz-Fernandez
10:15-10:30	Ilze Elbere
10:30-10:45	Marina Gomzikova
11:30-11:45	Olga Mitrofanova
11:45-12:00	Katarzyna Pels
12:00-12:15	Katarzyna Rodzik
12:15-12:30	Emre Ustunol

Student presentations Group 2	
14:30-14:45	Ilnur Salafutdinov
14:45-15:00	Elzbieta Sokol
15:00-15:15	Diána Szűcs
15:15-15:30	Arpad Varga
15:30-15:45	Michaela Roth
15:45-16:00	Jane Fisher

Student presentations Group 3	
09:00-09:15	Olga Jakovljević
09:15-09:30	Claudia Hermes
09:30-09:45	Agata Kaczyńska
09:45-10:00	José Cardoso
10:00-10:15	Tatiana Grigoreva
10:15-10:30	Irshad Sharafutdinov
10:30-10:45	Danijela Vidaković
10:45-11:00	Dimitrios Michailidis

Student presentations Group 4	
15:30-15:45	Said R. Özer
15:45-16:00	Lydia Papoylia
16:00-16:15	Kacper Ptaszek

Student presentations Group 5	
09:00-09:15	Ilnur Salafutdinov
09:15-09:30	Elzbieta Sokol
09:30-09:45	Diána Szűcs
09:45-10:00	Arpad Varga
10:00-10:15	Ena Šečić
10:15-10:30	Ivars Silamiķelis
10:30-10:45	Daniela Grassi
10:45-11:00	Laila Zepa