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Posted By [Zaure G. Aytasheva](#), Friday , February 19, 2016

Programme of meetings with gifted school children. November 3-5, 2015

Organizers: Department of Molecular Biology and Genetics, Diagnostic Center of KazNU

(Mr. Denis Zadubenko, Prof. Zaure Aytasheva,

Prof. Ernest Kaliyev, Dr. Aizhan Zhussupova)

Day 1

Lecture 1. Prof. Z. Aytasheva (60 min)

- 1) Introduction: missions and tasks of the event, role of gifted children in natural science dissemination regionwide
- 2) Tasks of molecular biology in modern world
- 3) DNA structure and story of discovery. .

Laboratory 1. Dr. A. Zhussupova (100 min)

- 1) Safety techniques
- 2) Clean premises
- 3) Classes of clean labs

Day 2

Lecture 2. Dr. A. Zhussupova (60 min.)

- 1) DNA. Complementary strands
- 2) Purine bases
- 3) Pyrimidine bases

Seminar. Dr. A. Zhussupova. (100 min)

- 1) Role of DNA in modern research
- 2) Nucleic acid amplification

День 3

Lecture 3. Prof. Z. Aytasheva (60 min)

- 1) In vivo amplification
- 2) In vitro amplification
- 3) PCR analysis based on the example of HPV

Laboratory 2. Dr. A. Zhussupova (100 min)

- 1) Isolation of plant material
- 2) Preparation of samples

- 3) DNA isolation from plant sources
- 4) Storage of precipitated DNA in cold conditions

Testing. Mr. D. Zadubenko (50 min)

Delivery of certificates. Prof. Z. Aytasheva.(20 min)



During DNA isolation. Instructor D. Zadubenko, 3-rd year of B.Sc. in Biotechnology KazNU, Diagnostic Center, KazNU, November 2015.



Talking after the lecture about education at KazNU. Schoolchildren from Kapchagai-city, Almaty Region, and Dr. Z. Aytasheva, Department of Mol. Biol. and Genetics, November 2015.