International conference dedicated to 10th anniversary of Center for Life Sciences
"MODERN CHALLENGES FOR BIOMEDICAL SCIENCES:
FROM BENCH TO BEDSIDE"

Date: 13-15 May, 2020
Venue: Nur-Sultan city, Kazakhstan

NAZARBAYEV UNIVERSITY
NATIONAL LABORATORY ASTANA

International conference dedicated to 10th anniversary of Center for Life Sciences

«MODERN PERSPECTIVES FOR BIOMEDICAL SCIENCES: FROM BENCH TO BEDSIDE»

13-15 May, 2020

Dear colleagues!

Center for Life Sciences, National Laboratory Astana at Nazarbayev University cordially invites you to participate in the International conference dedicated to 10th anniversary of Center for Life Sciences «MODERN PERSPECTIVES FOR BIOMEDICAL SCIENCES: FROM BENCH TO BEDSIDE», to be held in Nur-Sultan on May 13-15, 2020.

Scientists from leading universities; senior management of research organizations, educational institutions, healthcare industry representatives, officials and representatives of government of Kazakhstan are expected to attend this year's conference.

CONFERENCE OBJECTIVES:

Discussion of current issues and opportunities in the field of bioengineering and regenerative medicine, global health, genomic and personalized medicine, system biology and bioinformatics. The main attention of the anniversary conference is focused on the development of international cooperation in innovative research and breakthrough scientific developments in the field of biomedicine. Participation in the conference will allow you to contribute to the strengthening of the scientific potential of the research centers of Kazakhstan and the establishment of close ties with the international scientific community.

MAIN DIRECTIONS OF THE CONFERENCE:

1. Healthy ageing
2. Neurodegenerative disorders
3. Genome and personalized medicine
4. Bioinformatics and systems biology
5. Microbiome and metabolome
6. Bioengineering and regenerative medicine
7. Clinical laboratory medicine
8. Nuclear medicine and radiation safety in medicine

The workshop "Nuclear medicine and radiation safety in medicine" will be held as the part of the conference. The workshop will cover nuclear medicine both in diagnostic and therapeutic applications. Medical, occupational and public exposure in nuclear medicine will be also addressed. This event attracts leading scientists in radiobiology safety and nuclear medicine US, European and Asian countries research organizations.

Within the framework of the international anniversary Conference, the Workshop on Bioinformatics (May 14-15, 2020) will be organized on the basis of the Laboratory of Bioinformatics and Systems Biology, Center for Life Sciences, NLA, Nazarbayev University. Potential participants (no more than 20 participants) will be selected on a competitive basis. Participation in the Bioinformatics Workshop is free. Participants should prepare CVs, the list of publications, the motivation letter and the mini-project with hypothesis in any forms and send it to emails: bsb@nu.edu.kz and ulykbek.kairov@nu.edu.kz marked as /#BioinformaticsWorkshop. Deadline: March 15, 2020. The best participants of the school will receive a certificate for free internships at the Laboratory of Bioinformatics and Systems Biology, the Center for Life Sciences, NLA, Nazarbayev University and will take part in the implementation of ongoing research projects.

THE OFFICIAL CONFERENCE LANGUAGE:

English, Russian, Kazakh

FORMS OF PARTICIPATION:

Report*, poster session, publication, conference attendance.

*Plenary presentation and session reports are determined by the Organizing Committee.

PRESENTATION TIME:

Key note speaker – 20 minutes;
Speaker – 10 minutes.
The program of the conference will be available on the conference website.

OFFICIAL CONFERENCE WEBSITE:

http://www.tencls.kz/ru/

VENUE: Nazarbayev University, 53 Kabanbay Batyr avenue, Nur-Sultan, Kazakhstan

KEY DATES:

- ✓ ***Online registration of Conference participants:***
  Registration starts: September 1, 2019;
  Early bird registration closes: December 1, 2019
  Registration ends: February 10, 2020;
- ✓ ***Submission of application forms, abstracts and reports – before February 10, 2020;***
- ✓ ***Materials received after February 10, 2020 will not be considered by the Organizing Committee.***

NOTE TO AUTHORS:

Abstracts and reports shall be sent to the e-mail address with conference direction specification. Particular e-mails for each section will be available on the conference website BY September 1, 2019.

Abstracts should be submitted in English, Russian and Kazakh.

Abstracts are published in authors' edition, without any correction. The authors are responsible for the content of the abstract.

Organizing Committee reserves the right to reject abstracts of low quality and with poor grammar from inclusion into conference program and publication in conference materials.

Submitted materials are not returned.

REQUIREMENTS FOR ABSTRACTS

Main text

Abstracts must be submitted in a Word format (.doc or .docx). Single spacing, font – Times New Roman, font size – 12. Text size should not exceed 350 words. Your abstract should include a title page that contains information about each author (full name and surname, place of work, position; academic degree, title; work (mobile) phone number and email; form of participation and title of the report or poster). Surname of the principal author should be marked with an asterisk (*).

Abstract should be divided into sections which include following: introduction, methods, results, and conclusion.

Abstract must be submitted in English language.

Text of the abstract should not contain figures, tables, list of literature.

Abstracts and application forms should be sent in via email to the Organizing Committee. When sending an email as a file name, please use the full name of the principal author in the Latin script with conference direction specification (for example, Almaz_Akhmetov_Medical Genetics, Almaz_Akhmetov_Biobanking, Almaz_Akhmetov_Application form).

Abstract sample is shown in the Appendix below.

Abbreviations

Abbreviations should be given in brackets after their first mention in the text (for example: The Central Asian Journal of Global Health (CAJGH)). Standard units of measure do not require explanations.

POSTER REQUIREMENTS:

Poster size: max. width 100 cm, max. height 150 cm.

Orientation: portrait

POSTER NUMBER ASSINGMENTS will be indicated in FINAL PROGRAM on the conference website.

SECRETARIAT:

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Application form is filled in for one of the authors of scientific work within the separate file

Name (full)	
Date of birth	
Country, city	
Name of organization	
Position, academic degree (if you are a student, master or PhD student – year of studying, specialty)	
Work (mobile) phone number	
Email address	
Form of participation (report, poster session, publication, conference attendance)	
Title of the report (poster)	

Abstract template:

THESIS TITLE

Authors:
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Organization, position; academic degree, title; work phone number, E-mail
Ahmetov A.R.
Organization, position; academic degree, title; work phone number, E-mail

Key Words: 3-7 words
Introduction: Text
Methods: Text
Results: Text
Conclusion: Text

Abstract sample:

Font - Times New Roman, font size – 12.

ESTABLISHMENT OF SMALL CELL LUNG CANCER CELL LINES AND VALIDATION OF THEIR GROWTH CHARACTERISTICS

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Key words: Lung cancer, small cell lung cancer, NCI-H69, p53

Introduction: Rapidly metastasizing lung cancer is the top killer in the United States and many other countries. In 2014, there were nearly 224 210 new cases of lung cancer and 159 260 predicted mortality from the disease in the US and approximately 44 488 new registered cases of lung cancer in 2012 with 80% mortality and 5 % survival rate within 10 years of diagnosis in the UK. Lung cancer is the most prevalent type of cancer in Kazakhstan accounting for nearly 22.1% of all cancer cases. Small cell lung cancers (SCLCs) derived from the hormonal cells of the lung and classified as one of the most dedifferentiated cancers representing 10 – 15% of all lung cancers however showing extremely aggressive and rapid dissemination into various parts of the body. In this work we established SCLC cell line and characterised their growth for upcoming research purposes.

Methods: NCI-H69 is a small cell lung carcinoma line isolated from a pleural effusion from a female individual. Cell line was obtained from the American Type Culture Collection (ATCC) and mutant for p53. Cells were grown at 37oC in a humidified incubator at 5% CO2 in RPMI-1640 medium supplemented with 10% FCS, 10 U/ml penicillin, 0.1 mg/ml streptomycin and 0.5 mM glutamine. Cell lines were routinely cultured twice-weekly.

Results: Cells grow as suspension culture mostly as individual cells. As the cells divided, they formed clusters which then increased in size if left for long. Thus these clusters needed to be regularly disrupted in order to ensure rapid proliferation. Large clusters were disrupted with trypsin however resulted in slower growth phenotype. Furthermore, cells cultured long-term became partially or wholly adherent forming large aggregates that were difficult to proliferate. Finally, it was established that H69 cells were very sensitive to freezing and took considerable time to resume exponential growth upon thawing, and similarly were sensitive to cell density (therefore, not reccommended to passage these cells at dilutions greater than 1/8).

Conclusion: With attention to these issues and appropriate delicate handling it is however possible to successfully grow NCI-H69 cells so as to optimise cell proliferation.