RĪGA STRADIŅŠ UNIVERSITY INTERNATIONAL STUDENTS CONFERENCE 2022

Abstract Book

HEALTH SCIENCES

RĪGA STRADIŅŠ UNIVERSITY

RSU SP

Rīga Stradiņš University
INTERNATIONAL STUDENT
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HEALTH SCIENCES

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Preface

Dear students, dear professors, dear guests!

On behalf of Rīga Stradiņš University, it is my great honour and pleasure to welcome you all to Rīga Stradiņš University International Student Conference "Health and Social Sciences". Currently, it is the largest student scientific conference in Northern Europe.

We are meeting at a very stressful time for the whole world. However, our technological capabilities ensure that we can still proceed to carry out research.

Today, we welcome 295 students from 17 countries, for example, from Germany, Portugal, Poland, USA, Lithuania, Estonia and also from Ukraine. You will have the opportunity to present your studies, participate in workshops and master classes, as well as meet leading lecturers from all over the world. You are welcome!

You will present your theses in both medical and social sciences across the conference's 22 sections. In addition, 21 international jury members form 10 countries will participate in the conference. This testifies to the outstanding research capabilities of RSU students.

This conference is a significant event for each participant as it brings together students and experts from different fields. Rīga Stradiņš University aims to be a modern, prestigious university that is recognised in Europe and worldwide and that has the individual at its core – our students, professors, researchers and all academic and administrative staff are all essential to our team.

Dear students! I hope that you all will experience a conference where you will acquire many creative ideas and forge new professional contacts.

I wish you a productive and successful conference!

Professor **Aigars Pētersons**
RECTOR OF RĪGA STRADIŅŠ UNIVERSITY

Dear friends and guests of Rīga Stradiņš University,

As organizers, we are glad to have you with us during this difficult time that COVID-19 has brought. International Student Conference of Rīga Stradiņš University this year will be held both: online and onsite!

Despite all challenges we have faced, it is a pleasure that we received a huge amount of applications from more than 15 different countries. Our team has come a long way to provide you with the best of what hybrid conferences can provide! I hope you will enjoy our keynote speakers, plenary sessions, and workshops that will explore new horizons for all of you! Let's start this two-day-long journey with enthusiasm, curiosity, and hope that soon we will be able to meet in person!

Take care and stay safe!

Aija Tumova
CHAIR OF THE INTERNATIONAL STUDENT
CONFERENCE 2022 ORGANISING COMMITTEE

MORPHOLOGICAL ASPECTS OF THE GUINEA PIG SUBMANDIBULAR SALIVARY GLAND STRUCTURE

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Keywords. Guinea pig; Submandibular salivary gland; Morphological aspects

Objectives. Involvement of submandibular salivary glands in pathological processes during laboratory research requires more detailed and refined knowledge of the structural organization of their structure.

Materials and methods. The object of this study was left submandibular salivary glands of guinea pigs in order to save the lives of experimental animals,in strict accordance with the biotic standards of experimental studies. The test material was fixed in 12% neutral formalin for 7 days. The gland biopsies were compacted into paraffin according to the conventional method. Then thin histological sections 4-5 mkm thick were obtained from paraffin blocks and stained with hematoxylin and eosin, according to van Gieson's staining.

Results. It was found that the structure of the glands is complex alveolar-tubular. The terminal secretory divisions are represented by protein and mixed acinuses. Protein acinuses contained serous glandulocytes, which have a conical shape. Mixed acinuses consist of serocytes, mucocytes and myoepitheliocytes. Guinea pig duct system was represented by: intercalated, striated, interlobular ducts. Intercalated ducts were covered with cubic or squamous epithelium. Striated ducts were formed by cylindrical epitheliocytes. Interlobular ducts were lined first with double-row and then multi-row epithelium, behind which the basement membrane was visualized. Also, guinea pigs have a histotopographic difference in the location of microvessels. Arterioles and venules were located only periportally in the connective tissue stroma, and capillaries exclusively periacinar.

Conclusions. After analyzing the guinea pig submandibular salivary glands morphology, it is possible to conclude that the structural organization and morphological features of the glands is very complex and not fundamentally different from humans` one. Guinea pigs can be used to model different pathological processes. The results can be implemented in the human body.