



STUDENTS & PROJECTS

LEARNING BY DOING



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SALUTATORY A FEW WORDS FROM OUR LEADERSHIP

On June 1st, 2021, the Central of Translational Medicine (CTM) began its work as a part of a new dynamic process at Semmelweis University (SU), aiming to reinforce the opportunities at multiple levels, including teaching, research, and patient care.

Nowadays, with science rapidly evolving, experimentation, data collection, analysis, and decision-making based on scientific results have become essential to high-quality patient care. As a result, a new concept called Translational Medicine (TM) has emerged with the main objective of accelerating and streamlining the use of scientific results, including the prevention, treatment, and monitoring of diseases.

According to data from the European Commission's Statistical Office, 126 900 deaths occurred in Hungary in 2016, of which approximately 30 000 could have been avoided through better prevention, 16 000 through more effective patient care, and a further 14 000 through better patient education. For patients under the age of 75, the situation is even more dramatic: four out of five deaths are found to be preventable. Apart from the COVID crisis, the statistics are slowly getting better, although, with the effective use of knowledge to enhance our healthcare, these statistics could be further improved.

As part of the Research, Development and Innovation (RDI) support system at SU, the Centre for Translational Medicine has a clear purpose to develop a harmony between teaching, research, and medical services, as well as to reinforce the complexity of these three duties in a challenging environment. In order to achieve its goal of boosting Hungary's competitiveness in all fields of medicine, the Translational Medicine PhD Program combines education and scientific activity, which then is translated into patient care. Furthermore, this model aims to provide a suitable career model for outstanding doctors and professionals, thereby improving the quality of education, patient care, and scientific performance.

The new TM PhD Program is open to all students from different departments and aspires to maintain close collaboration in the education of doctors, healthcare professionals and researchers.



BÉLA MERKELY Rector of the Semmelweis University



PÉTER FERDINANDY Vice-Rector for Science and Innovations



PÉTER HEGYI Director of the Centre for Translational Medicine

INTRODUCTION TO TRANSLATIONAL MEDICINE

S THE HISTORY OF TRANSLATIONAL MEDICINE IN HUNGARY

The first CTM in Hungary was established at the University of Pécs (UP) in January 2016 under the leadership of Péter Hegyi. The main partner for UP was the Translational Medicine Foundation (TMF), which provided educational materials, IT support, network connections, and an internationally accessible, highly visible platform from the very beginning.

The University of Pécs has established excellent conditions for medical care, and its motivated professors, students, and physicians have provided great resources for patient care, education, and research. The TMF has promoted the practical application of scientific results and innovations in health care, as well as stimulating and unifying the exchange of information and data flow between universities, hospitals, and research centres. By supporting patient care, education, scientific activity, and communication, we set up a multifaceted unit at the outset involving a number of different disciplines, including patient coordination, biostatistics, IT, data management, artificial intelligence, legal support, and communication.

Within a short period of time, two hospitals (Szent György University Teaching Hospital of Fejér County in Székesfehérvár and Heim Pál National Pediatric Institute in Budapest) and three universities (University of Pécs in Pécs, University of Szeged in Szeged and Semmelweis University in Budapest) joined the TM program, expanding translational medicine in Hungary to a national level.

Within the first five years, almost 50 PhD students and residents have participated in our programs, and more than 300 high-quality research papers and articles have been published based on scientific research and translational patient care. The results have made it possible to develop and supplement a number of treatment guidelines and to immediately apply scientific results in patient care.

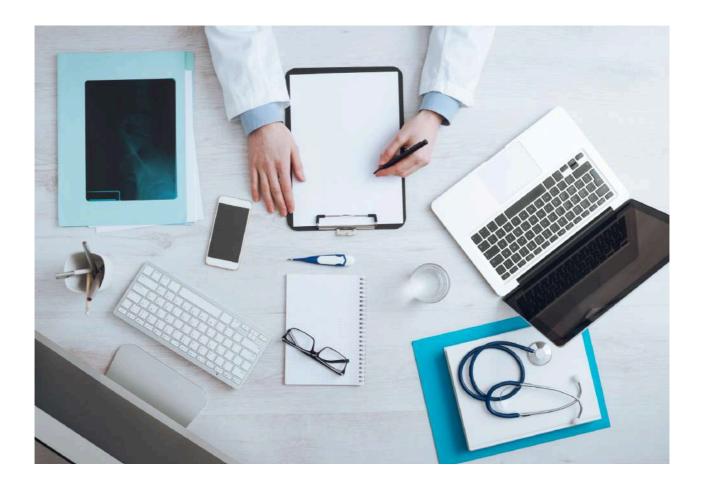
A summary of this period was published in the highly distinguished journal Nature Medicine. In June 2021, Semmelweis University established the Centre for Translational Medicine (CTM), one of the largest TM centres in Europe, where in 2021 **91**, in 2022 **84**, whereas in 2023, **89** PhD students began their research. This worldwide unique program is attracting a considerable amount of attention internationally, allowing us to estimate significant growth in the program's future.



THE IMPORTANCE OF TRANSLATIONAL MEDICINE

The major goal of TM is to turn scientific results into community benefits. Why is this necessary? The answer is quite simple: we are currently using scientific findings in everyday medicine with very poor efficiency. The European Statistical Office of the European Commission has recently reported that 1.7 million people under the age of 75 died in Europe in 2016, with around 1.2 million of those deaths could have been avoided through effective primary prevention and public health intervention. Therefore, Academia Europaea, one of the five Pan-European networks that form SAPEA (Science Advice for Policy by European Academies), a key element of the European Commission's Scientific Advice Mechanism (SAM), has launched a project in 2018 to develop a model to facilitate and accelerate the utilization of scientific knowledge for public and community benefit.

During the process, leaders in the field, including prominent basic and clinical researchers, editors-in-chief of high-impact journals publishing translational research articles, TM centre leaders, media representatives, academics, and university leaders, developed the TM cycle, a new model that we believe could significantly improve the development of TM. This model focuses equally on the acquisition of new scientific results in healthcare, understandable and digestible summation of results, and their communication to all participants. The authors, including senior officers of Academia Europaea, conducted an important paper to serve as a basis for revising the thinking of TM with end result of enabling more efficient and cost-effective healthcare.

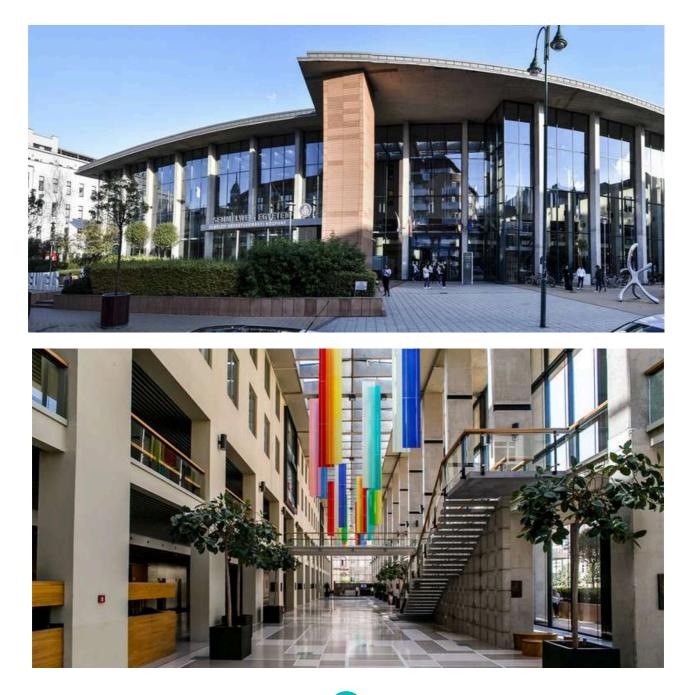




SEMMELWEIS UNIVERSITY (SU) INTRODUCTION

Semmelweis University's history started more than 250 years ago in 1769. Today SU is one of the leading institutions of higher education in Hungary and the Central European Region in the field of medicine and health sciences. At SU, our core commitment is based on the integrity of education, research, and medicine that makes the University an internationally recognised centre of excellence.

Semmelweis University aims to rank among the best universities in the world and recognized the importance and the high potential in the translational medicine. Therefore, this programme was invited to function in a much bigger scale than before, now under the umbrella of SU. As a result, the training at SU started with more than 90 students in 2021.



STRANSLATIONAL MEDICINE FOUNDATION

Translational Medicine is, by default, the translation of basic and clinical research findings and, more broadly, the transitioning of all types of research - basic research, meta-analysis, cohort analysis, and clinical trials - back into patient care as quickly as possible. This is a breakthrough in medicine for the 21st century, improving health prevention and the quality of patient care, speeding up the diagnostic process of diseases, and making healthcare more cost-effective.

The Translational Medicine Foundation (TMF) aims to contribute to the development and nature of translational research in Hungary with the results of raising the health quality of Hungarian citizens. These activities are fully non-profit for the benefit of the public as well as it is carried out in a transparent and accessible way to disseminate science-based medicine throughout Hungary. Within this framework, the TMF's mission is to implement the results of scientific research into patient care as soon as possible. These four values are cardinal for the operation of the foundation:

- 1. Innovation.
- **2. Excellence:** to conduct high-quality scientific work and to encourage others to do the same.
- **3. Commitment:** committed to supporting and advocating the recognition of the importance of science based medicine.
- **4. Ethical conduct:** accountability and commitment to ethical professional practice.

In pursuing these values, the foundation will work towards the following objectives:

a) promoting the practical application of scientific results and innovations in health care,

b) stimulating and standardizing the **exchange of information** and data between universities, hospitals, and research centers, and facilitating their quality control, which can significantly improve the quality of multicenter research and reduce the resources needed for research,

c) helping all members of the population (including healthy individuals, patients, doctors, etc.) to understand and implement evidence-based knowledge in their daily lives through different platforms (web, printed materials, videos, etc.),

d) participating in the organization of conferences and training courses and the funding of researchrelated procurement, services, and human resource searches and selection.

To achieve the above objectives, the TMF Board of Trustees Chair has made the Electronic Clinical Data Management System (ECDMS), a data management and quality control system, available to the foundation free of charge under a user agreement. The TMF is entitled to grant the right of use to universities, hospitals, and research institutions, following the above values and objectives.

The TMF has also created blended education video materials that are available for free to Hungarian universities for the education of students on public scholarships. This is also available for students in feepaying courses if their university donates a certain percentage of their fees to support the foundation's objectives.

Blended Education Hybrid PHD and Medical/Healthcare training program

Our Hybrid PhD and Medical/Healthcare Training Program at the CTM provides students with the opportunity to engage in patient care and academic activity simultaneously. Within the framework of the training, they acquire clinical research methodologies using the "learning by doing" method through independent scientific projects. They are provided the opportunity to join workgroups and participate in meta-analyses, studies related to different registers, and clinical trials.

The program helps students to become critical consumers of medical research papers, to gather primary data on health issues through questioning and observation of patients, and to conduct biomedical research. Students will gain an understanding of the planning of clinical research, including meta-analysis, patient registries, and clinical trials, by designing an extended project in study groups, which are led by experienced members of CTM.

We use the following teaching methods:

E-LEARNING

To provide the most support and convenience for students, we created an e-learning program to decrease the number of courses that require attendance. These online lectures are available in 7 topics, but our online course database is constantly expanding. The courses are held by internationally distinguished scientists and contain tests at the beginning and end of each video so students can better follow their learning process. These are carried out based on individual timetables, but they must be completed before the given personal course. Completion means finishing the opening and closing tests. A minimum of 75% of the points must be achieved on the final test.

GROUP MEETING

It gives a great opportunity to run inter- and multidisciplinary discussions. Weekly meetings help with monitoring the learning process and encourage a better quality of work. Discussions take place in person. Participants of the group discussion: all PhD students in the group, supervisor, group leader, CTM staff, and TDK students. Attendance at the group meetings is mandatory for everyone. The time of the group meeting remains constant throughout the year and is expected to last 2-2.5 hours.

WORKSHOP

The incorporation of in-person workshops following e-learning modules is a commendable approach, enhancing the overall educational experience by bridging theoretical knowledge with practical application. The groups are divided into classes, and class meetings are held on a class-by-class basis. Each course is held on separate days. Attendance is mandatory for all PhD students. Otherwise, we cannot credit the course. TDK students and supervisors are also recommended to join. The courses are in-person and last 6 hours with breaks.

PROJECT MEETING

The PhD student, supervisor, TDK student, and SMS/statistician have to participate in the project meetings weekly. The meetings are mainly held online (e.g., Zoom), if necessary, in person.

SEMINARS

Every year, CTM organizes several seminars for our students. We invite outstanding researchers who can provide a career path model. The seminars are open to anyone, but PhD students are required to attend.

PROGRESS REPORT

Progress Reports (PRs) are scheduled every 3 or 6 months, aligning with the academic year. Attendance is compulsory for all participants, and rescheduling on an alternate day is not feasible. Each PR session entails an 8/10-minute presentation, succeeded by a 4-minute discussion, during which the audience is free to ask questions about the projects. The purpose of PR is to monitor the progress of students and their projects, to help everyone develop presentation techniques, and to build relationships with members of other students. The PR VI is equal to the complex exam, which has to be completed by the end of the 2nd year. Starting from the 3rd year, students in an advanced phase can start to prepare their thesis. Therefore, we organize PR VII as the house defense, while PR VIII represents the thesis defense. By the time of the thesis defense, the students had already presented their project almost 100 times.

IT SUPPORT

We use Moodle to manage the tasks that arise during the training. It provides support for storing personal data, e-learning for training, project tracking, attendance sheet management, peer-to-peer communication, forums, and calendar management.

EXPERT SUPPORT

The following experienced scientists will provide support for the students:

1) The **group leaders** are experienced physician-scientists who are well-known representatives of their field and have a record of high-level research productivity.

2) An **expert discussant** is appointed for each group. They are highly experienced physician-scientists who provide help from the design of the study until the publication. They help the students (1) polish their projects, (2) find the big picture, and (3) challenge them on a weekly basis.

3) The scientific supervisors of each fellow are senior clinicians (experts) who raise relevant clinical questions, determine the direction of the research, and bridge the gap between the theoretical and clinical work within the clinical PhD program. This supervisor continuously leads the research work of the fellows during the whole program.

4) Scientific methodology supervisors are a methodologist who has experience in designing and carrying out translational research projects and provides methodological support in various aspects of science, including meta-analysis, patient registries, and clinical trials.

5) Educational supervisors are experts in the various fields that are being taught through courses to the fellows. Such courses include meta-analysis, patient registry, clinical trial, biostatistics, data handling, and clinical pharmacology.

6) Statisticians are appointed to each group to provide valuable help for the statistical work of the project.

INTERDISCIPLINARY RESEARCH SUPPORT

Our centre has begun building an interdisciplinary research support team to support the work of researchers and PhD students in numerous areas. The **scientific methodology team** provides a basic professional background in the development of courses, and in the design and implementation of patient registries, meta-analysis, and clinical trials. The **IT group** offers support in the development of multi-centre registries and clinical trials, and the **biostatistics group** aids in the planning of data collection as well as the analysis of incoming data. Clinical research is also supported by the **central administrative service**, e.g., through the preparation and submission of documents for ethical permissions. The **legal team** helps researchers comply with ethics and GDPR rules. The communication team supports the design, preparation, and dissemination of education and information materials.

We use **Moodle** to manage the tasks that arise during the training. It provides support for storing personal data, e-learning for training, project tracking, attendance sheet management, peer-to-peer communication, forums, and calendar management.

HEADS OF THE PROGRAM



PÉTER HEGYI Director of the Centre



SZILÁRD VÁNCSA Vice director for Education, Expert scientific facilitator



GÁBOR VARGA Vice Director for General operation and education



RITA NAGY Expert Scientific Facilitator



DÓRA CZAPÁRI Vice director for Communication, funding and network development



MAHMOUD OBEIDAT Year I Coordinator



ANDREA HARNOS Vice Director for Statistics and learning management systems



ALEXANDER SCHULZE WENNING Year II&III Coordinator

LIFETIME CAREER MODEL

Besides "learning by doing", "learning by teaching" is our other main motto.

The CTM offers an outstanding seven-step progression system for our students.

Firstly, the beginning of the education process starts with a **Scientific Methodology Learner (SML)** (also known as TDK student) position, where regular attendance (above 75%) at group and project meetings is required. It comes with great benefits such as participation in research, direct recruitment opportunities, co-authorship, and an MD-PhD option for the following year.

Moving on to the next level, students become **Science Methodology Practitioners (SMP)** (also known as Year 1. PhD students). This position provides the benefits of participating in the course and getting free help such as statistician support, provision data management background, and IT support. SMPs will also join a continuously growing international network.

Entering the second year of the PhD program, students are able to progress and move on to the next step in the seven-step progression system, which involves mentoring Year 1 PhD students. Students become **Science Methodology Supervisors (SMS)**, which comes with an expectation of being the winner of the month (automatic), Student Excellence Award, and appropriate motivation. The benefits that come with being an SMS are providing a job within the CTM as well as a great number of co-authorships.

Step four in the progression is **Science Methodology Advisor (SMA)**. The conditions to become an advisor are passing a complex exam, availability of first-authored articles required for own PhD, and a suitably motivated attitude. The higher the expectations, the bigger the benefits get. Those in an SMA position will get the possibility to work in the EUROSTAT database along with Academia Europaea members, and lastly, a co-authorship will come with the position.

The last three steps are for highly dedicated members of the CTM staff. Science Methodology Experts (SME) are students who reached step five due to a special invitation. The following benefits are provided for this position. Leadership position where the student will have the possibility to participate in soft skill training, scholarships for training abroad, access to EUROSTAT database and AE membership, co-contracting, and advanced statistical training. Last but not least, it comes with the benefit of admission to the MTA Youth Chapter and with a nomination to the Young Academy of Europe.

Following the expert level, one can join the **Expert Scientific Facilitators (ESF)** group. Members of the ESF group must attend regular group meetings and progress reports, and they must give lectures for the Year I and II students. ESFs are also expected to initiate collaborations, participate in the recruitment of new members, and initiate innovative solutions in the PhD education. This minimum requirement includes the preparation of the PhD thesis. As a result, ESFs will have the possibility to get access to international training, unique collaborations, and memberships.

The last step in the seven-step progression system is joining the **Expert Scientific Discussants (ESD)** group. A PhD degree is mandatory for this position. ESDs must attend regular group meetings and progress reports, and they must give lectures for PhD students. Besides ESF tasks, ESDs are required to review PhD thesis and help students prepare for the PhD defense. Work comes with important rewards. Those in the ESD group will get help in initiating their own research groups. SMEs, ESF, and ESD will be nominated as assistant lecturers or assistant professors.

Every month, **CTM awards the best-performing** student and supervisor in each year level. In addition, the best group, SMS, statistician, and project student in the first year is also awarded. All awards are based on availability, effort, and creativity. In addition, for SMSs, coordination skills and methodological knowledge are also taken into account. For students, the level of presentation skills is a separate criterion, and the activity and contributions of group leaders in meetings are assessed separately.



EDUCATION STATISTICS



In the following section with the use of figures and statistics, we would like to present the first three years of our PhD program. During this academic year, our less than 50 staff members are training more than 500 participants from different groups, such as PhD students, TDK students, supervisors, and students who are only taking a single course at the CTM.

From September, we were able to increase the percentage of the PhD students enrolled in our program within all PhD students at Semmelweis University from 32% to 36%, meanwhile both the national and international visibility and respect of our program have increased by welcoming students from 40 hospitals and 21 different countries.

Currently, we are monitoring **541** projects, out of which **64** projects are already published. Students are required to publish a minimum of two first-author papers. However, a numerous number of students run three, four or even five projects.

GENDER DISTRIBUTION

Our program strongly stands by the idea of **gender equality**, with the supporting evidence of the exceeding number of female students enrolled in the program. Having a higher number of female students than male students in attending the program this year, shows that we are providing an equal opportunity for everyone regardless of their gender.



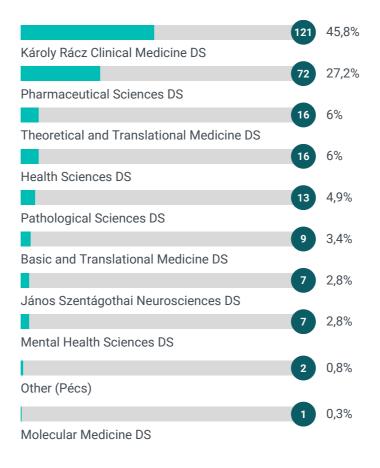
With our motto being that science should play a prominent role throughout the career of healthcare

professionals, this program **doesn't have an age limitation**. From recent graduates to experienced specialists, we are providing an opportunity for every age group to further develop their scientific skills, eagerness to learn, and love for science.



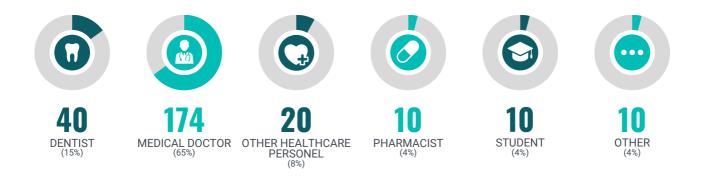
CHOSEN PROGRAMME

There is a significant interest from all doctoral schools of Semmelweis University for our PhD program. Meanwhile in both academic years the highest number of applications were received from the Károly Rácz and the Pharmaceutical Sciences Doctoral Schools.

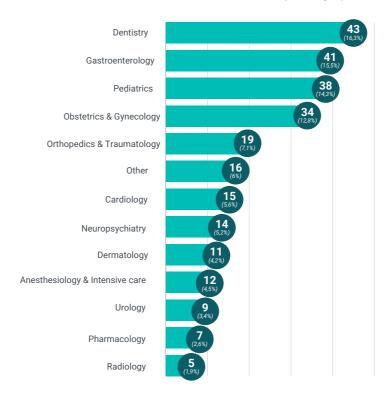


OCCUPATION

Regardless of a high number of PhD students being residents, the participation is not restricted to a medical degree. The program has an increased number of students **from all health sciences** such as dietetics, pharmacy, dentistry, psychology, and other marginal specialties.

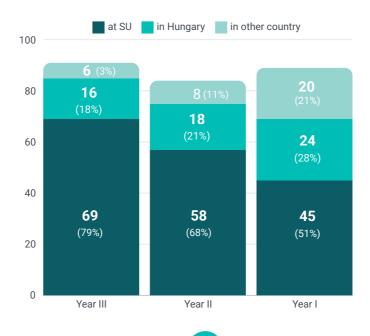


During both years, students work in groups according to their specialization. The most popular research fields among the attendees were dentistry, gastroenterology, pediatrics, obstetrics, and orthopedics. However, the interest of students stands over the whole healthcare specialty spectrum.



WORKPLACE

The number of students is constant year by year. However, the source of them is changing. In Year III, most of the students joined from Semmelweis University, and the number of foreign students was low. Compared to this, Year I students joined in high numbers from other centers in Hungary outside of SU, and also the number of foreign students increased significantly.



The number of PhD students is growing each year. However, the **highest number of students are from Semmelweis University (SU)**. Below, we are presenting a table with the top SU centers. The Department of Obstetrics and Gynecology and Institue of Pancreatic Diseases provided more than 20 students each. On the other hand, Heim Pál National Pediatric Institute provides the highest number of students outside of SU in Hungary. The number of international students is also continuously growing, led by the University of Medicine, Pharmacy, Science and Technology of Tîrgu Mureş.

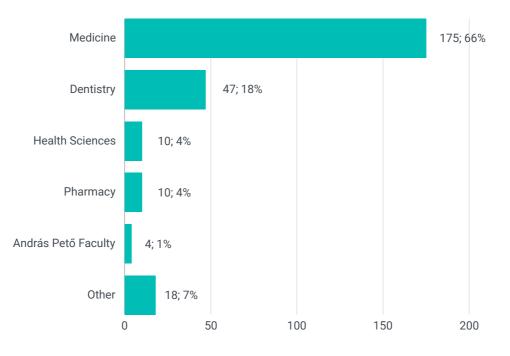
TOP SEMMELWEIS UNIVERSITY DEPARTMENTS	NO. OF STUDENTS
Department of Obstetrics and Gynecology, Semmelweis University	27
Institute of Pancreatic Diseases, Semmelweis University	20
Department of Prosthodontics, Semmelweis University	15
Pediatric Center, Semmelweis University	14
Heart and Vascular Center, Semmelweis University	12
Department of Orthopedics, Semmelweis University	12
Department of Dermatology, Venereology and Dermatooncology, Semmelweis University	10

TOP HOSPITALS	NO. OF STUDENTS
Heim Pál National Pediatric Institute	11
Bethesda Children's Hospital	5
Bajcsy-Zsilinszky Hospital and Clinic	5
Hungarian Defense Forces Medical Centre	5
TOP OTHER UNIVERSITIES	NO. OF STUDENTS
University of Medicine, Pharmacy, Science and Technology of Tîrgu Mureş	5

University of Medicine and Pharmacy "Grigore T. Popa", Iași4Carol Davila University of Medicine and Pharmacy, Bucharest4Wenzhou Medical University3

FACULTIES AT SU

Of the six faculties at SU, the Faculty of Medicine provided the most students, the Faculty of Dentistry being the second one. Although some faculties provided only a few students into the program, compared to the number of undergraduate or MSc students, this number is still relevant. We encourage each healthcare specialty training center to motivate their students to progress to PhD.



FORM OF SUPPORT

The financial support in our training is constantly changing. Among Year III students, most of the students are **supported by the Hungarian Goverment** and there are only three Stipendium Hungaricum supported students. Compared to this, among Year I students, the number of self-financed and Stipdendium Hungaricum supported students increased while we started to have more and more MD-PhD students.

Form of support / Years	Year III	Year II	Year I	Total
Hungarian Goverment	85	75	66	228
International Bilaterial	0	3	3	6
MD-PhD	0	1	5	6
MOL Fundation	3	2	2	7
Self financed	0	2	8	10
Stipendium Hungaricum	3	1	7	9

INTERNATIONAL SUPPORT

Our center places special focus on building an international translational medicine network. Therefore, our aim is to **increase the number of international students**. International students attend not only from Europe but from any continent worldwide. The overall number of international students reached 34 this year.



THE CENTRE IN NUMBERS

The following figure summarized the most important numbers at the start of the 2023/2024 academic year, representing the scientific activity of the Centre for Translational Medicine and the PhD students participating in the training.



OUR CENTRE'S ORGANOGRAM

OFFICIALS



PÉTER HEGYI Director of the Centre



GÁBOR VARGA Vice Director for General operation and education



DÓRA CZAPÁRI Vice director for Communication, funding and network development



ANDREA HARNOS Vice Director for Statistics and learning management systems



SZILÁRD VÁNCSA Vice director for Education, Expert scientific facilitator



RITA NAGY Deputy Expert Scientific Facilitator



JUDIT ZENTAI Head of secretariat

STATISTICS & EDUCATION DEVELOPEMENT GROUP



ANDREA HARNOS Vice Director for Statistics and learning management systems



ZSOLT ABONYI-TÓTH



PÉTER FEHÉRVÁRI



ÁDÁM ZOLCSÁK





DÁNIEL VERES



BENCE SZABÓ



ZOLTÁN SIPOS



NOÉMI GEDE





NELLI FARKAS







ANNA WALTER



PÉTER MÁTRAI



MIKOLT BAKONY



SZILVIA KISS-DALA



RÉKA TÓTH

EDUCATION DEVELOPERS



JUDIT BENCZE



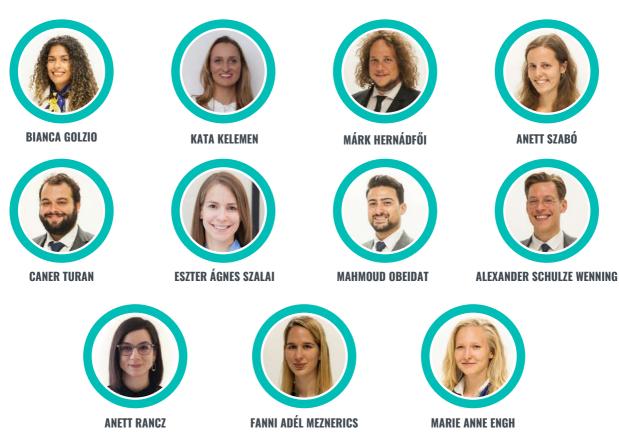


ZSÓFIA MAGYAR

KINGA KINCSŐ HORVÁTH

SCIENTIFIC METHODOLOGY SUPERVISORS (SMS)

YEAR III



YEAR II



QIAN XINYI



JAKUB HOFERICA



ISABEL PINTO AMORIM DAS VIRGENS



DOROTTYA BASTIDAS-GERGŐ



PETRANA MARTINEKOVA



ANNA SÁRA LENGYEL

COMMUNICATION, FUNDING AND NETWORK DEVELOPMENT GROUP



DÓRA CZAPÁRI Vice director for Communication, funding and network development

INTERNATIONAL RELATIONS



VIKTÓRIA BARNA International relations and Horizon 2020 project manager

COMMUNICATION

QIAN XINYI

International coordinator



NÓRA KEREKES Communication coordinator, Event organiser



VIKTÓRIA KOCSIS Communication coordinator, Graphics designer

SECRETARIAT



ATTILA MÁRTA Online communication coordinator, IT consultant



JUDIT ZENTAI Head of secretariat



VIVIEN TÁRNOK Secretary



RÉKA KALTENECKER Secretary



HENRIETT VÁCZ Secretary



MELINDA SEBŐK Secretary



TÍMEA VERES Secretary

MOST ACTIVE **Supervisors**



PÉTER HEGYI 17 students



MIKLÓS GARAMI 11 students



SZABOLCS VÁRBÍRÓ 7 students



GÁBOR VARGA 5 students



NORBERT KISS 4 students



NÁNDOR ÁCS 13 students



ANDRÁS BÁNVÖLGYI 8 students



STEFANIA BUNDUC 6 students



DEZSŐ CSUPOR 4 students



ORSOLYA NÉMETH 4 students



ZSOLT MOLNÁR 13 students



BÁLINT ERŐSS 8 students



TIBOR SZARVAS 5 students



BEÁTA KERÉMI 4 students



ANDREA PÁRNICZKY 4 students

COLLABORATIONS WITH INSTITUTES & HOSPITALS



MOL PROGRAM



ROMANIA

The MOL program aims to disseminate both the knowledge of modern clinical science and scientific activity in Romania and to establish a cooperating network between Romania and Hungary. All Romanian citizens under the age of 35 with a medical degree, an active knowledge of medical English (minimum B2 level), and an interest in biomedical research are eligible to apply to the program.

The selection criteria are based on a point system, where English language skills, previous scientific activity, and clinical knowledge are required, among other things. The winning student will receive a monthly stipend of €1000, and their supervisor will receive a €150 stipend each month. The program is 12 months long, with an extension opportunity if needed. In case of the project not being published after the 12-month period an additional 6 months can be used where methodological and statistical support is provided by the CTM. There is also an opportunity for students to extend their scientific training either through a public grant or a remunerated Ph.D. course.

To complete the program, active participation in group meetings is required for the entire length of the program. You will also be expected to complete the required coursework, prepare and submit at least one publication to a journal, and present your research results at a scientific conference.

AWARDED STUDENTS

2020/2021: Stefania Bunduc, Brigitta Teutsch
2021/2022: Anett Rancz, Cristina Patoni, Emőke Henrietta Kovács
2022/2023: Mihaela Topola, Előd-János Zsigmond
2023/2024: Adolf Lichtfusz, Kincső Lőrincz

STIPENDIUM HUNGARICUM



The Stipendium Hungaricum, the most prestigious higher education scholarship programme of the Hungarian government, was established in 2013. International students with excellent academic records can apply and choose from a wide range of courses. The aim of the scholarship is to support the internationalisation and continuous development of Hungarian higher education, to strengthen the international relations of the academic and research community, and to promote the reputation and competitiveness of Hungarian higher education worldwide.

The programme is based on bilateral education agreements between Hungary and the governments of the sending countries and is already available on five continents in nearly 90 countries and territories, attracting more than 5,000 international students annually. Applicants are offered more than 600 complete training programmes covering all fields of higher education and all levels of training, including part-time and doctoral programmes.

The Stipendium Hungaricum scholarship programme was established by the Hungarian government to promote the internationalisation of Hungarian higher education and to attract excellent foreign students from all over the world who can develop personal and professional ties with Hungary while receiving a highquality education in the heart of Europe.

AWARDED STUDENTS

2021/2022: Mahmoud Obeidat, Bianca Golzio Navarro Calvancante, Garmaa Gantsetseg
2022/2023: Isabella Amorim Pinto das Virgens
2023/2024: Amir Makolli, Azamat Bissenov, Bruna Guimaraess, Esra Zhubi, Gökçe Can, Seba Aljomaa, Yasir Nabeel Al-Mohammad



BILATERIAL PHD EDUCATION PROGRAM

In the academic year of 2022/2023 the bilateral doctoral program has been launched within the framework of the Translational Medicine Training Program. The training is part of both the doctoral programs of Semmelweis University and a collaborative university, where the doctoral degree is awarded bilaterally. The applicant will be enrolled in the Translational Medicine Training Program of SU and will also be admitted to the other collaborating university, involving the opportunity of having a double supervisor from both universities. Regarding research and papers being published, the joint final authorship rules will apply. The PhD students must spend at least their first year at SU, the following 2-4 years can be completed via distance learning. During the PhD course, weekly discussions will be held where the collaborating supervisors are going to be required to participate. As for the current academic year, we have established a collaboration with two universities in this field and with three students undertaking doctoral studies.

CONTRIBUTING INSTITUTES

Comenius University Bratislava, Slovakia Grigore T Popa University of Medicine and Pharmacy of Iasi, Romania Carol Davila University of Medicine and Pharmacy, Bucharest, Romania



COLLABORATING UNIVERSITIES, HOSPITALS

A cardinal element of the hybrid doctoral programme is that our students expand their knowledge at the bedside. This requires good collaboration with hospitals. The number of collaborating hospitals is growing dynamically, including both Hungarian and international institutions. Our partners this year include the Fundeni Clinical Institute (Romania) and Quzhou People's Hospital (Quzhou City, China).

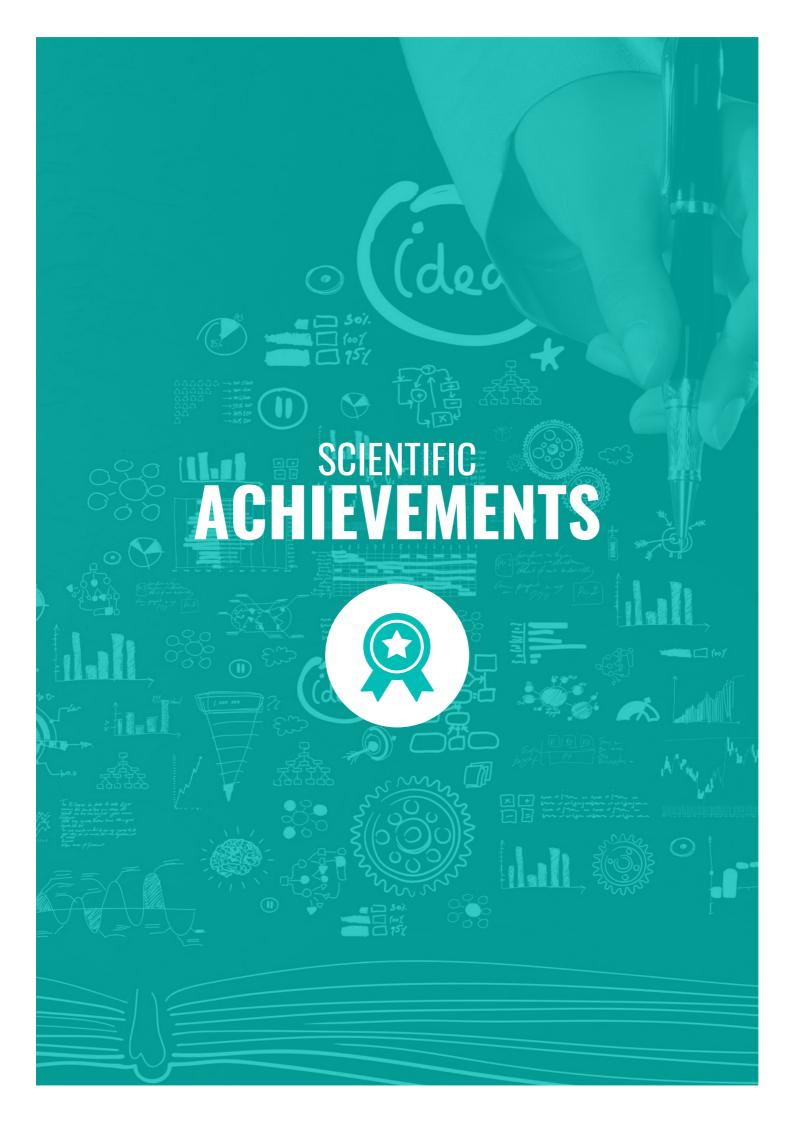
In order to strengthen the international relations of Semmelweis University, we also cooperate with foreign universities beyond the bilateral training. We have established close relations with Wenzhou Medical University (Quzhou, China), Martin University (Slovakia), and Carol Davila University of Medicine and Pharmacy (Bucharest, Romania).

Our training program attracts healthcare personnel not only from the four Hungarian medical universities but also from county hospitals and hospitals in Budapest, the capital of Hungary. The overall number of **collaborating hospitals is 40**.



While most of our students are from Hungary, the number of foreign students is increasing year by year. Countries providing the most students until now are Romania, China, Brazil, and Slovakia. The overall number of countries we have students from is **21**.









In January 2016, University of Pécs (UP) was the first university in Hungary to innovatively provide the possibility of this new system in Hungary, thereby taking on a completely unique patient care, education and science module.

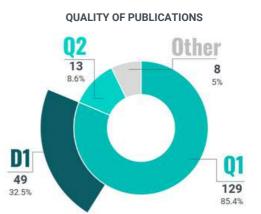
The Institute for Translational Medicine at UP and the Translational Medicine Foundation with the Academia Europaea have developed and launched the Translational Medicine Programme. Since the start of the Translational Medicine PhD programme in 2016, the number and quality of publications has been improving year by year. Between 2016 and 2022, 326 publications were delivered, with an average impact factor of 4.9.

At the first phase, between 2016 and 2020, there were 179 publications, with an average impact factor of 4.4 and on average, 75% of the publications were published in Q1 journals each year. However, in the period 2021-2022, there were 147 publications (more than twice as much per year) and the average impact factor of the publications exceeded 7.

In 2022, already 87% of the publications were published in a Q1-ranked journal, highlighting that one third of these were D1-ranked publications. In the 2021/22 academic year 213 projects have been started and nearly within a year 6 papers have been published out of them.



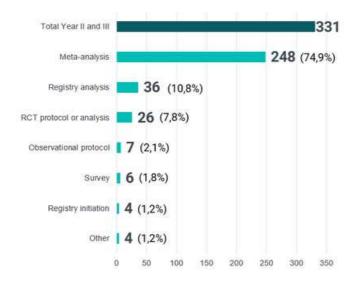
NO. OF PUBLICATIONS: 151 IF SUM: 789.077 IF AVE: 5.226





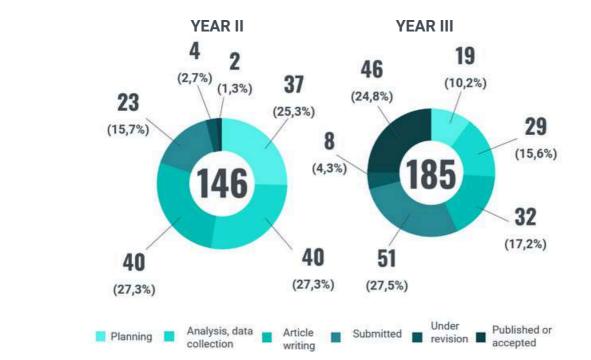
FIRST AUTHOR JOURNAL		PUBLICATION YEAR	IMPACT FACTOR	D	
Hegyi P	Nat Med	2021	87,244	D1	
Szentesi A	Gut	2022	31,795	D1	
Czapári D	Gastroenterology	2022	29,4	D1	
Papp M Crit Care		2023	15,1	D1	
Budai KA	eClinMed	2023	15,1	D1	

STATISTICS OF STUDENT PUBLICATIONS



The number of projects is continously increasing. In Year II adn III as of the start of the 2023/2024 academic year, there were 331 projects. The highest number of projects were meta-analyses. However, the number of regisry analyses and randomized controlled trial protocols are also increasing. On the second figure we present the status of projects separatly for Year II and Year III students. Year III students are advancing with their publications, as a high number of projects are already published or submitted. Among Year II projects we can already see a great number of publications. However, second projects are in an incipient phase.

The results of the TM PhD training is also visible in the fact that all the publications by the PhD students were published in journals with at least Q1 ranking. However, almost 40% were published in D1 journals.



	FIRST AUTHOR	JOURNAL	YEAR	IF	SJR
	Éliás AJ	BMC Medicine	2023	9.3	D1
	Juhász AE	Am J Clin Nutr	2023	7.1	D1
47	Pethő B	BJOG	2023	5.8	D1
62%	Széles Á	Cancer Immunol Immunot her	2023	5.8	D1
	Kubik A	Int J Mol Sci	2023	5.6	D1

SCIENTIFIC OUTPUT TOP PUBLICATIONS OF THE CENTRE

As a result of our high level scientific work and research, we would like to represent our five article with the highest impact factor from each year, from 2016 until now. To see the TOP5 articles each year on PubMed, click on their title.

2023

Detailed characteristics of post-discharge mortality in acute pancreatitis *Gastroenterology*, IF: **29,4**

Less marginal bone loss around bone-level implants restored with long abutments : A systematic review and meta-analysis Periodontology 2000, IF: 18,6

Extended infusion of β-lactams significantly reduces mortality and enhances microbiological eradication in paediatric patients: a systematic review and meta-analysis *eClinnicalMedicine*, IF: **15**,1

Procalcitonin-guided antibiotic therapy may shorten length of treatment and may improve survival—a systematic review and meta-analysis *Critical Care*, IF: 15,1

The histologic fetal inflammatory response and neonatal outcomes : systematic review and meta-analysis *American Journal of Obstetrics and Gynecology*, IF: **9,8**

2022

Alcohol consumption and smoking dose-dependently and synergistically worsen local pancreas damage *Gut*, IF: 24.5

Association of Body Mass Index With Clinical Outcomes in Patients With Cystic Fibrosis: A Systematic Review and Meta-analysis Jama Network Open, IF: 13,8

MIF is a Common Genetic Determinant of COVID-19 Symptomatic Infection and Severity *QJM-An International Journal Of Medicine*, IF: **13.3**

Dietary supplementation of transient receptor potential vanilloid-1 channel agonists reduces serum total cholesterol level: a meta-analysis of controlled human trials Critical Reviews In Food Science And Nutrition, IF: 10,2

Clinical Frailty Scale (CFS) indicated frailty is associated with increased in-hospital and 30-day mortality in COVID-19 patients: a systematic review and meta-analysis Annals Of Intensive Care, IF: 8.1

2021

Accelerating the translational medicine cycle: the Academia Europaea pilot Nature Medicine, IF: 87,241

Critical thresholds: key to unlocking the door to the prevention and specific treatments for acute pancreatitis *Gut*, IF: 31,793

Design and validation of a patient-reported outcome measure scale in acute pancreatitis: the PAN-PROMISE study *Gut*, IF: 31,793

Metabolic signature might be an option to identify patients with early CP *Gut*, IF: **31,793**

Uncertainty in the impact of liver support systems in acute-on-chronic liver failure: a systematic review and network meta-analysis Annals Of Intensive Care, IF: 10,318

2020

Alcohol-dependent effect of PRSS1-PRSS2 haplotype in chronic pancreatitis *Gut*, IF: **23,059**

Novel p.K374E variant of CPA1 causes misfolding-induced hereditary pancreatitis with autosomal dominant inheritance *Gut*, IF: 23,059

Lipotoxicity and Cytokine Storm in Severe Acute Pancreatitis and COVID-19 *Gastroenterology*, IF: **22,682**

Analysis of 1060 Cases of Drug-Induced Acute Pancreatitis Gastroenterology, IF: 22,682

The negative impact of comorbidities on the disease course of COVID-19 Intensive Care Medicine, IF: 17,44 Resection of pancreatic cancer in Europe and USA: an international large-scale study highlighting large variations

Gut, IF: 19,819

Genetic determinants of telomere length and risk of pancreatic cancer: A PANDoRA study International Journal Of Cancer, IF: 5,145

Germline BRCA2 K3326X and CHEK2 I157T mutations increase risk for sporadic pancreatic ductal adenocarcinoma International Journal Of Cancer, IF: 5,145

Genetic variability of the ABCC2 gene and clinical outcomes in pancreatic cancer patients *Carcinogenesis,* IF: **4,603**

Spilanthol Inhibits Inflammatory Transcription Factors and iNOS Expression in Macrophages and Exerts Anti-inflammatory Effects in Dermatitis and Pancreatitis International Journal Of Molecular Sciences, IF: 4,556

2018

Guts and Gall: Bile Acids in Regulation of Intestinal Epithelial Function in Health and Disease *Physiological Reviews*, IF: **24,25**

Mitochondrial Dysfunction, Through Impaired Autophagy, Leads to Endoplasmic Reticulum Stress, Deregulated Lipid Metabolism, and Pancreatitis in Animal Models Gastroenterology, IF: 19,809

Genome-wide association study identifies inversion in the CTRB1-CTRB2 locus to modify risk for alcoholic and non-alcoholic chronic pancreatitis *Gut*, IF: 17,943

Genome-wide meta-analysis identifies five new susceptibility loci for pancreatic cancer *Nature Communications*, IF: **11,878**

Steroid but not Biological Therapy Elevates the risk of Venous Thromboembolic Events in Inflammatory Bowel Disease: A Meta-Analysis Journal Of Crohns & Colitis, IF: 7,827 2017

Smoking and Drinking Synergize in Pancreatitis: Multiple Hits on Multiple Targets *Gastroenterology*, IF: **20,773**

Misfolding cationic trypsinogen variant p.L104P causes hereditary pancreatitis *Gut,* IF: **17,016**

Novel PRSS1 Mutation p.P17T Validates Pathogenic Relevance of CTRC-Mediated Processing of the Trypsinogen Activation Peptide in Chronic Pancreatitis American Journal Of Gastroenterology, IF: 10,231

Transpancreatic sphincterotomy has a higher cannulation success rate than needle-knife precut papillotomy - a meta-analysis Endoscopy, IF: 6,629

The formin DAAM is required for coordination of the actin and microtubule cytoskeleton in axonal growth cones Journal Of Cell Science 0021-9533 1477-9137, IF: 4,401

2016

Ca2+ toxicity and mitochondrial damage in acute pancreatitis: translational overview *Philosophical Transactions of the Royal Society B - Biological Sciences,* IF: **5,846**

CFTR: A New Horizon in the Pathomechanism and Treatment of Pancreatitis *Reviews Of Physiology Biochemistry and Pharmacology*, IF: **4,769**

Bile as a key aetiological factor of acute but not chronic pancreatitis: a possible theory revealed *Journal Of Physiology-London*, IF: **4,739**

Pathogenic cellular role of the p.L104P human cationic trypsinogen variant in chronic pancreatitis *American Journal Of Physiology: Gastrointestinal and Liver Physiology*, IF: **3,468**

A novel, protective role of ursodeoxycholate in bile-induced pancreatic ductal injury *American Journal of Physiology: Gastrointestinal and Liver Physiology*, IF: **3,468**

INTRODUCING OUR STUDENTS



AWARDS

To reward our best performing students and colleagues, we created montly awards, which means, that based on the given month, the most dedicated and hardworking members are choosen and given a certificate and an engraved glass statue. Throughout the book you will se little badges near the picture of a student or a colleague, which means that the person has already received that award. Here you can see what kind of awards we have. The numbers on the ribbons refering to the year and month when the award was received.





STUDENT of the month

SUPERVISOR of the month



GROUP of the month



SMS of the month



STATISTICIAN of the month

ONLINE STUDENT PROFILES



By scanning the QR codes, (or clicking on them in the online version) you can access the profile of the students on our website. Students who already participated on Progress Reports and presented their research progress, videos of the presentation are available there. As we progress through the year, you'll find the videos of our newer students as well.

PUBLICATIONS



For those students who already have publications, the articles are shown on their profiles with the name of the journal they're published, the quality and the impactfactor as well. In the online version if you click on the title of the publication, you'll be directed to the abstract of the given article.

PROGRESS LEVEL

From this year, Year II and III students are divided not only based on specialty but also their progress report according to the following:

1. Graduate - Students who have at least two accepted or published articles may be included in this group.

2. Completed - Students who have both first-author papers submitted but not yet published.

3. Excellence - Students with two submitted papers and working on further projects.

4. *Accelerator* - Students with at least one submitted paper, but the second first-author paper is in progress.

5. *Individual students* - Excellent or accelerator students not able to participate in the bi-weekly group meetings.



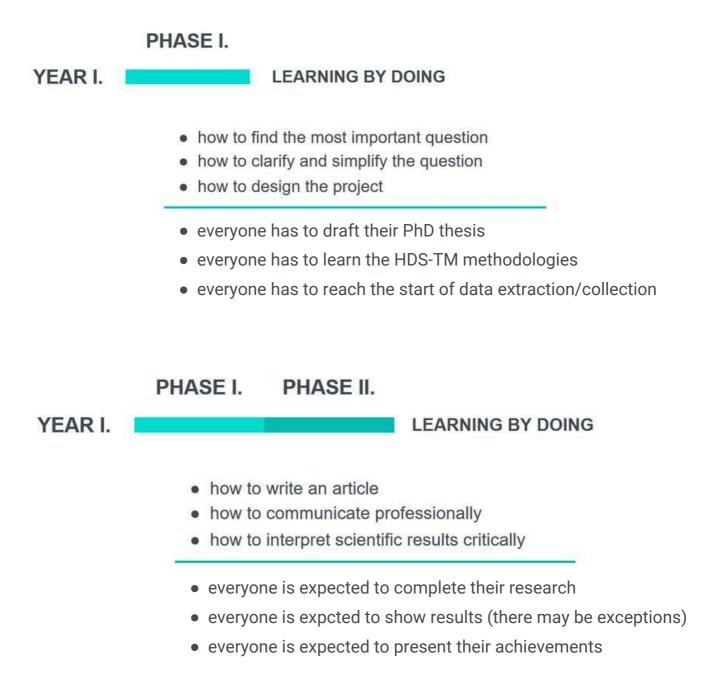
YEAR I.

STARTED IN SEPTEMBER, 2023

THE 1ST YEAR All you need to know about it

1

The goal of Year I is solely focused on learning the basics of research, from asking questions, through learning methodologies, to publishing results in four specific phases. The first phase is concentrating on explaining all the "how to…" -s such as communicating professionally, writing articles, and interpreting scientific results. Phase number two is completing searches, showing results, and presenting those achievements. The following third phase is aiming to use the learning-by-doing method where students have the opportunity to meet and talk with top researchers alongside working on the completion of their search/data summary and presenting their achievements. The last phase of the progress is finishing the first papers and as always presenting the achievement.





Overall, in the first year of the program, PhD students focus on their academic work four days a week and participate in clinical patient care placements only one day a week. In the second year, students are required to conduct their research more independently. From then on, they spend four days a week on clinical patient care, and one day a week, on protected time for scientific research.

The first year is divided into four phases, and at the end of each phase, progress reports are submitted by students. The first year focuses on the learning by doing model. Students will focus on scientific activity, meta-analysis, registry building, and clinical trials, as they will dedicate four days a week to this. In contrast, only one working day per week is allocated to resident work and teaching.

In the first phase everyone learns:

- · how to find the most important question,
- how to clarify and simplify the question.
- how to design the project

Expectation to achieve

- everyone has to draft their PhD thesis
- everyone has to learn the HDS-TM methodologies
- everyone has to reach the start of data extraction

In the second phase, everyone learns

- how to write an article
- how to communicate professionally
- · how to interpret scientific results critically

Expectation to achieve

- · everyone is expected to complete their search
- everyone is expected to show results
- · everyone is expected to present their achievements

In the third phase, everyone learns

• the opportunity to meet and talk to top researchers

Expectation to achieve

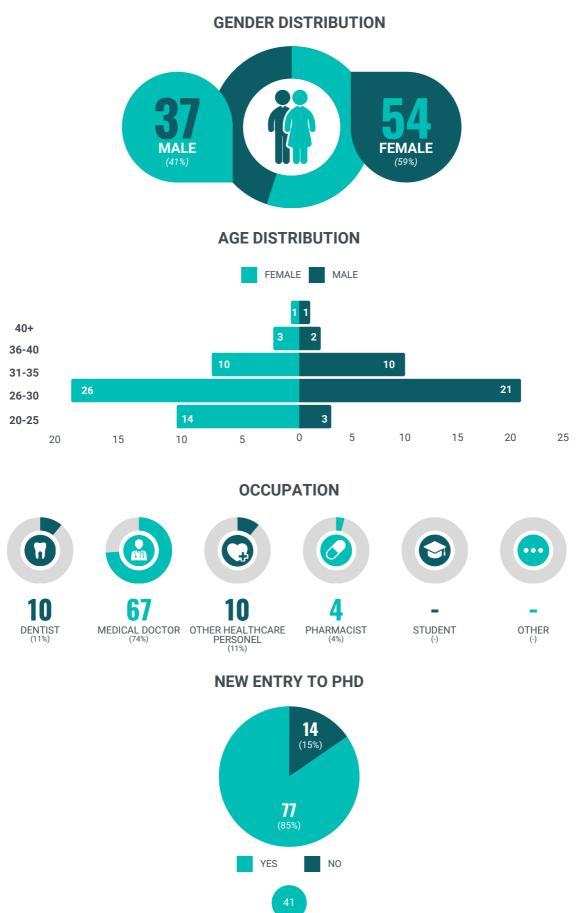
- · everyone is expected to complete their search/data summary
- · everyone is expected to present their achievements

In the fourth phase, everyone writes his/her paper.

Expectation to achieve

- everyone is expected to complete their first paper
- · everyone is expected to present their achievements





GROUP 1 CARDIOLOGY & INTERSIVE



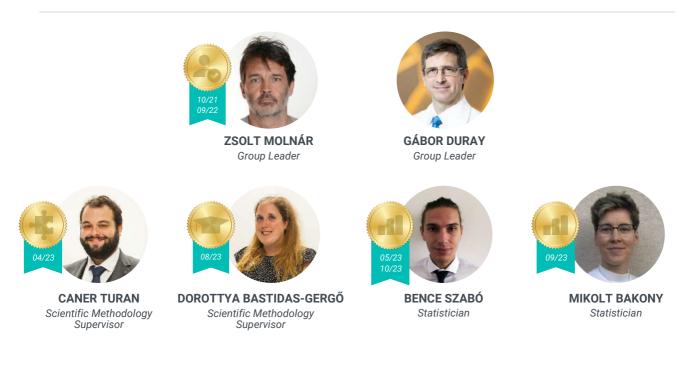


GROUP MEETINGS MONDAY, 12:30 PM - 3:30 PM

INTRODUCTION TO THE GROUP

The cardio-intensive group is named as such after the two senior supervisors, Gábor Duray and Zsolt Molnár, a cardiologist and intensivist, respectively, who are highly renowned researchers and long-time collaborators with the Centre for Translational Medicine. They lead the group of twelve highly motivated students with outstanding leadership and experience. Furthermore, the group boasts twelve more supervisors, including two junior supervisors who are current PhD students in their second and third years with our centre. Dorottya Bastidas-Gergő and Caner Turan are the group's scientific methodology supervisors. Despite the group name, a wide range of clinical fields are represented in this multidisciplinary team, supporting productive discussions on various projects that include cardiology, intensive care, anesthesiology, pulmonology, rheumatology, and interventional radiology. This group's students are working on systematic review projects and protocols of various important clinical experiments.

MEMBERS OF THE GROUP



STUDENTS: Brúnó Bánk Balázs, Anna Boglárka Bardóczi, Nina Galdzytska, Dávid Laczkó, Adolf Lichtfusz, Zsombor Zoltán Matics, Tímea Mátyási Dombi, Levente Prácser, Mátyás Rédei, Petra Sólymos, Idikó Szántó, Eszter Szőke

SUPERVISORS: Gábor Duray, István Ferenc Édes, Gábor Horváth, Dénes Balázs Horváthy, Emőke Henrietta Kovács, András Lovas, Zsolt Molnár, Veronika Müller, Balázs Nemes, Judit Papp, Márton Papp, Zoltán Ruszkai, Krisztián Tánczos, László Zubek



AGE 24 years **EDUCATION** medical doctor SUPERVISOR(S) István Ferenc Édes E-MAIL balazsbrunob@gmail.com



AGE 27 years **EDUCATION** medical doctor SUPERVISOR(S) Gábor Horváth E-MAIL bardoczi.anna@gmail.com



AGE 33 years **EDUCATION** medical doctor SUPERVISOR(S) Gábor Duray E-MAIL n.galdzytska@gmail.com



AGE 26 years **EDUCATION** medical doctor SUPERVISOR(S) Balázs Nemes E-MAIL laczkodavid97@hotmail.com

BRÚNÓ BÁNK BALÁZS

HEART AND VASCULAR CENTER, SEMMELWEIS UNIVERSITY

TOPIC

Novel methods to optimize cardiac catheterization

VISION

Enhance the safety of the cardiac catheterization laboratory team by reducing occupational hazards.

MISSION

TOPIC

VISION

MISSION

symptoms.

apnea patients

Provide forward-looking and novel scientific results in occupational radiation safety.

Potential effects of GLP-1 analogs in obstructive sleep

Provide a better quality of life for people with obstructive

Investigate whether the weight loss drugs GLP-1 analogs

could help to reduce/eliminate obstructive sleep apnea

sleep apnea by developing novel treatment strategies.

SPECIFIC GOALS

PROJECT 1: Investigating the risk of radiation exposure for different personnel during fluoroscopy-guided cardiovascular procedures: a systematic review and meta-analysis. PROJECT 2: Evaluating Various Types of Radioprotective Equipment in the Catheterization Laboratory (EVERET): A Phantom Study.

ANNA BOGLÁRKA BARDÓCZI

DEPARTMENT OF PULMONOLOGY. SEMMELWEIS UNIVERSITY

SPECIFIC GOALS

PROJECT 1: Potential effects of GLP-1 analogs in obstructive sleep apnea patients: a systematic review and meta-analysis.

PROJECT 2: Investigating the Cardio-metabolic effects and safety of liraglutide therapy in patients with CPAP treatment for obesity-related sleep apnea: a randomized controlled trial.

NINA GAI D7YTSKA

HUNGARIAN DEFENSE FORCES MEDICAL CENTRE

TOPIC

The role of chronic systemic inflammation in cardiovascular pathology

VISION

Improve approaches to the diagnosis and treatment of patients with chronic systemic inflammation.

MISSION

Study inflammatory cytokines and their role in patients with chronic inflammation.

SPECIFIC GOALS

PROJECT 1: Improve the treatment, diagnosis and risk assessment of patients with chronic inflammation: a systematic review and metaanalysis.

PROJECT 2: Investigating the role of inflammatory biomarkers in the development of in-stent restenosis in patients who underwent percutaneous coronary intervention: a systematic review and meta-analysis.

DÁVID LACZKÓ

DEPARTMENT OF INTERVENTIONAL RADIOLOGY, SEMMELWEIS UNIVERSITY

TOPIC Investigating the efficiency of arterial and venous endovascular procedures

VISION

Improve the mortality and quality of life of patients with cardiovascular diseases.

MISSION

Identify the best available procedures to achieve my vision.

SPECIFIC GOALS **PROJECT 1:** Investigating the effectiveness and safety of embolic agents in bronchial artery embolisation: a systematic review and metaanalysis.

PROJECT 2: Investigating particle embolic agents in bronchial artery embolisation: a retrospective cohort study.











AGE 25 years EDUCATION medical doctor SUPERVISOR(S) Gábor Duray, Judit Papp E-MAIL adolf.lichtfusz@gmail.com



AGE 31 years EDUCATION medical doctor SUPERVISOR(S) Veronika Müller E-MAIL maticszsombor@gmail.com



AGE 39 years EDUCATION medical doctor SUPERVISOR(S) Zsolt Molnár, Krisztián Tánczos, Emőke Henrietta Kovács E-MAIL

dombitimi@gmail.com



AGE 26 years EDUCATION medical doctor SUPERVISOR(S)

Zsolt Molnár, Márton Papp, László Zubek E-MAIL

pracserlevente@gmail.com

ADOLF LICHTFUSZ

HUNGARIAN DEFENSE FORCES MEDICAL CENTRE

TOPIC

Management strategies for patients with heart failure

VISION

Heart failure patients with an individualised treatment strategy.

MISSION

Clarify the best treatment plan for each subgroup of patients.

SPECIFIC GOALS

PROJECT 1: Assessing the effectiveness of transcatheter mitral valve repair on left ventricular reverse remodeling in heart failure: a systematic review and meta-analysis.

PROJECT 2: Identifying Predictive Factors and Biomarkers for Subclinical Leaflet Thrombosis After Transcatheter Aortic Valve Implantation: A Systematic Review and Meta-analysis.

ZSOMBOR ZOLTÁN MATICS

DEPARTMENT OF PULMONOLOGY, SEMMELWEIS UNIVERSITY

TOPIC

Infections in fibrosing interstitial lung diseases

VISION

Infectology will be an inseparable part of the evaluation of interstitial lung diseases.

MISSION

Provide evidence-based data that draws attention to the importance of infectology.

SPECIFIC GOALS

PROJECT 1: Prevalence of respiratory tract infections in antifibrotic-treated idiopathic pulmonary fibrosis: a systematic review and metaanalysis. **PROJECT 2:** -

TÍMEA MÁTYÁSI-DOMBI

BUDAPESTI DR. MANNINGER JENŐ TRAUMA CENTRE, ANESTHESIA AND INTENSIVE CARE DEPARTMENT

TOPIC

Diagnostic and therapeutic options in sepsis associated coagulopathy

VISION

Improve the individualized hemostasis management in critically ill patients in Hungary.

MISSION

Generate high-quality data to develop evidence-based hemostasis protocols for better patient care.

SPECIFIC GOALS

PROJECT 1: Comparing the effectiveness and safety profiles of different anticoagulant therapies in sepsis-associated coagulopathy: a systematic review and meta-analysis.

PROJECT 2: Investigating the effect of early fibrinogen treatment on trauma-associated coagulopathy in critically ill patients: a systematic review and meta-analysis.

LEVENTE PRÁCSER

SZENT JÁNOS HOSPITAL

TOPIC

Investigating the consequences of inappropriate antibiotic use in the Intensive Care Unit

VISION

I want to live in a world where every physician can access the most up-to-date resources.

MISSION

Provide the best clinical evidence possible to help healthcare professionals make the best possible decisions.

SPECIFIC GOALS

PROJECT 1: Investigating the effects of inappropriate antibiotic use on complication rate in the Intensive Care Unit: a systematic review and meta-analysis.

PROJECT 2: Investigating the potential harmful effects of inappropriate antibiotic treatment for critically ill patients: prospective and retrospective observational study.













AGE 25 years **EDUCATION** medical doctor SUPERVISOR(S) Dénes Balázs Horváthy E-MAIL mredei54@gmail.com



AGE 25 years **EDUCATION** medical doctor SUPERVISOR(S) Dénes Balázs Horváthy E-MAIL petrasolymos@gmail.com



AGE 42 years **EDUCATION** medical doctor SUPERVISOR(S) Zsolt Molnár, Zoltán Ruszkai E-MAIL szantoildiko09@gmail.com



AGE 32 years EDUCATION special education teacher: speech and language therapist SUPERVISOR(S) Zsolt Molnár, András Lovas E-MAIL szokeeszter05@gmail.com

MÁTYÁS RÉDEI

MEDICAL IMAGING CENTRE, SEMMELWEIS UNIVERSITY

TOPIC

Impact of Navigational Systems on CT-guided Interventions

VISION

Enhance CT-guided interventions with advanced navigational systems for safer and more effective patient outcomes.

MISSION

To thoroughly research navigational systems' impact on CT-guided interventions, assessing safety and effectiveness comprehensively.

PETRA SÓLYMOS

MEDICAL IMAGING CENTRE, SEMMELWEIS UNIVERSITY

TOPIC

Investigating radioembolization as an option in the treatment of liver tumors

VISION

Prolong the life of patients with liver tumors using radioembolization as treatment.

MISSION

Determine the efficacy and safety of the isotopes in clinical use

ILDIKÓ SZÁNTÓ

HOSPITALS OF SZABOLCS-SZATMÁR BEREG COUNTY, JÓSA ANDRÁS HOSPITAL, DEPARTMENT OF ANESTHESIOLOGY AND INTENSIVE THERAPY

TOPIC

The association between fluid therapy and organ dysfunction in critically ill patients

VISION

Improve postoperative outcomes in high-risk surgical patients.

SEMMELWEIS HOSPITAL, KISKUNHALAS

Diagnosing and preventing dysphagia associated

complications in tracheostomized critically ill patients

Improve tracheostomized patients' lives by reducing

aspiration-related complications.

Speech therapists and physicians working side-by-side for

MISSION

TOPIC

VISION

our patients.

MISSION

ESZTER S7ŐKF

To identify the best possible therapy strategy that causes the least harm in critically ill patients.

PROJECT 2: Comparing the use of 166Holmium

SPECIFIC GOALS

SPECIFIC GOALS

review and meta-analysis.

PROJECT 1: Investigating the Safety and Effectiveness of Navigational Systems for Patients

Undergoing CT-Guided Intervention: a systematic

PROJECT 2: Evaluation of a novel navigational

system to improve the accuracy of CT-guided

pulmonary biopsies: retrospective cohort study.

and 90Yttrium isotope in transarterial radioembolization for the treatment of liver tumors: Randomized Controlled Trial.

PROJECT 1: Investigating the safety and efficacy

of 166Ho radioembolization in patients with liver tumor: a systematic review and meta-analysis.

SPECIFIC GOALS

crystalloids vs. normal saline on organ dysfunction in patients undergoing major abdominal surgery: a systematic review and meta-analysis. PROJECT 2: Investigating organ dysfunction in septic shock patients receiving fluid resuscitation with balanced crystalloids versus isotonic saline: a systematic review and meta-analysis.



PROJECT 1: Comparing the Modified Evan's Blue Dye Test (MEBDT) to Fiberoptic Endoscopic Evaluation of Swallowing (FEES) in diagnosing aspiration in tracheostomized critically ill patients: a systematic review and meta-analysis. PROJECT 2: Assessing the Accuracy and the Inter-Rater Reliability of the Guggling Swallowing Screening (GUSS) test for Tracheostomized Intensive Care Patients: an observational cohort study

SPECIFIC GOALS

PROJECT 1: Investigating the Effects of balanced





GROUP 2 DENTISTRY

FROMAL SERVICE

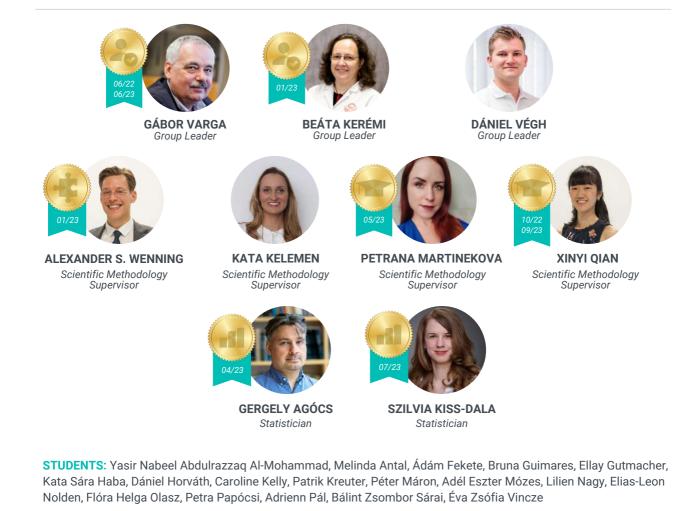


GROUP MEETINGS MONDAY, 4 PM - 8 PM

INTRODUCTION TO THE GROUP

The dentistry group consists of 18 students and 27 supervisors who work in various fields of medicine. The group includes disciplines such as prosthodontics, community dentistry, oral and maxillofacial surgery, orthodontics, implantology, and endodontics. As all the dental fields are represented in the group, a multidisciplinary approach to the discussion of clinical topics presents a unique opportunity for both the PhD students and their supervisors. All students are conducting systematic reviews and meta-analyses to improve clinical practice and to have a positive effect on their patients' lives. Furthermore, several clinical trials and observational studies are conducted to provide high-quality evidence in the respective fields. The SMSs of the team are Petrana Martinekova, Xinyi Qian, Alexander Schulze Wenning, and Kata Kelemen, who are coordinating a huge variety of topics. Group leaders are Beáta Kerémi, Dániel Végh, and Gábor Varga, who are acknowledged experts in their field at Semmelweis University.

MEMBERS OF THE GROUP



SUPERVISORS: Emese Ábrám, Nándor Ács (Supervisor of the month: September 2021), Dorottya Bányai, Andrea Bródy, Zoltán Géczi, Dóra Haluszka, Beáta Kerémi, Márton Kivovics, László Köles, Krisztina Márton, Orsolya Németh (Supervisor of the month: March 2023), Zsolt Németh, Zsolt Lohinai, Ivett Róth, Noémi Katinka Rózsa, Gábor Varga, Mihály Vaszilkó, János Vág, Dániel Végh, Ákos Zsembery



YASIR NABEEL ABDULRAZZAQ AL-MOHAMMAD

DEPARTMENT OF PROSTHODONTICS, UNIVERSITY OF BASRAH

TOPIC

New insights in the management of partially or completely edentulous patients

VISION

Providing the patient with a durable, long term and comfortable prosthesis.

MISSION

Investigating the clinical evidence concerning implants and abutments in fixed prosthodontics.

SPECIFIC GOALS

PROJECT 1: Comparing the long-term success of zirconia versus titanium implant abutments: a systematic review and meta-analysis. **PROJECT 2:** Investigating the efficacy and safety of added soft liners on removable denture: a systematic review and meta-analysis.

AGEPri32 yearscoEDUCATIONdentistdentistMSUPERVISOR(S)InGábor VargaabE-MAILyasir.abdulrazzaq@uobasrah.edu.iq



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AGE 35 years EDUCATION dentist SUPERVISOR(S) Márton Kivovics E-MAIL brunaguimaraess@icloud.com

MELINDA ANTAL

SEMMELWEIS UNIVERSITY

TOPIC

Optical and mechanical characteristics of dental ceramics

VISION

Provide patients the best all-ceramic restoration.

MISSION

Supply dentists a guidance about the appliance of different dental ceramics.

SPECIFIC GOALS

PROJECT 1: Comparing the mechanical characteristics of additively vs subtractively manufactured dental ceramics: a systematic review and meta-analysis. **PROJECT 2:** Investigating the effect of aging on

the color stability of dental ceramics: a systematic review and meta-analysis.

ÁDÁM FEKETE

DEPARTMENT OF RESTORATIVE DENTISTRY AND ENDODONTICS, SEMMELWEIS UNIVERSITY

TOPIC

Imbalance in vascular reactivity between healthy women and men

VISION

Improving the quality-adjusted life-year (QALY) of female patients with cardiovacular and periodontal diseases.

MISSION

Provide evidence based data for personalized care.

SPECIFIC GOALS

PROJECT 1: Comparing vascular reactivity between healthy women and men on macrovascular and microvascular level: a systematic review and meta-analysis. PROJECT 2: Comparing vascular reactivity between healthy women and men on macrovascular and microvascular level: Nonrandomized clinical trial.

BRUNA GUIMARAES

DEPARTMENT OF COMMUNITY DENTISTRY, SEMMELWEIS UNIVERSITY

TOPIC

Investigating the accuracy of artificial intelligence used for caries diagnosis

VISION

Making high end dental solutions accessible to the public.

MISSION

Applying artificial intelligence not only for implant dentistry, but community dentistry as well.

SPECIFIC GOALS

PROJECT 1: Investigating the accuracy of artificial intelligence used for approximal caries diagnosis: A Systematic Review and Meta-Analysis. **PROJECT 2:** Investigating the accuracy of intraoral scaner at diagnosinf caries: a systematic review and meta-analysis.





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ELLAY GUTMACHER

SEMMELWEIS UNIVERSITY

TOPIC

Novel insights into the oral - systemic health axis

VISION

Empowering global healthcare through a comprehensive understanding of the oral - systemic health axis.

MISSION

Exploring the bidirectional relationship of the oral-systemic health axis.

SPECIFIC GOALS

PROJECT 1: Investigating the salivary levels of Fusobacterium nucleatum in patients with colorectal carcinoma: a systematic review and meta-analysis.

PROJECT 2: Investigating the diagnostic accuracy of salivary procalcitonin in bacterial-induced systemic inflammation: a systematic review and meta-analysis.

KATA SÁRA HABA

DEPARTMENT OF PROSTHODONTICS, SEMMELWEIS UNIVERSITY

TOPIC Oral complications of type II diabetes mellitus

VISION

Improve the life quality of patients with diabetes.

MISSION

Assess the potential oral complications of diabetes and target them.

SPECIFIC GOALS

PROJECT 1: Investigating the Correlation between salivary glucose level and blood glucose level: a systematic review and meta-analysis. **PROJECT 2:** Investigating the oral care habits and oral complications among people with diabetes with special interest in periodontitis: a systematic review and meta-analysis.

DÁNIEL HORVÁTH

DEPARTMENT OF ORAL DIAGNOSTICS, SEMMELWEIS UNIVERSITY

TOPIC

Artificial intelligence in oral medicine

VISION

An artificial intelligence based guide for clinicians, that helps to diagnose and treat oral medicine patients.

MISSION

Verify artificial intelligence as a reliable support for clinicians, find the possibilities and limitations of the technology.

SPECIFIC GOALS

PROJECT 1: Investigating the diagnostic accuracy of artificial intelligence in oral potentially malignant disorders: a systematic review and meta-analysis. **PROJECT 2:** Investigating the Diagnostic accuracy of artificial intelligence in oral lichen planus and oral lichenoid lesions: Prospective observational study.

CAROLINE KELLY

DEPARTMENT OF RESTORATIVE DENTISTRY AND ENDODONTICS, SEMMELWEIS UNIVERSITY

TOPIC

Investigating the correlation between oral health and comorbidities

VISION

Reduce the number of comorbidities associated with oral lesions.

MISSION

Educate the population on the importance of oral health and its impact on our general health.

SPECIFIC GOALS

PROJECT 1: Investigating the prevalence of bacteria in periodontal pockets and atherosclerotic plaques in patients with atherosclerosis: a systematic review and meta-analysis. **PROJECT 2:** Effects of nonsurgical endodontic treatment on risk-biomarkers for cardiovascular disease: a systematic review and meta-analysis.















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AGE 28 years EDUCATION dentist SUPERVISOR(S) Zoltán Géczi E-MAIL nagylilien0828@gmail.com

PATRIK KREUTER

DEPARTMENT OF PAEDIATRIC DENTISTRY AND ORTHODONTICS, SEMMELWEIS UNIVERSITY

TOPIC

The latest advancements in digital orthodontics

VISION

Help more people smile confidently.

MISSION

Create more accessible orthodontic treatments.

SPECIFIC GOALS

PROJECT 1: Investigating the differences in root resorption between fixed appliances and aligners in permanent dentition: a systematic review and meta-analysis.

PROJECT 2: Analyzing the failure rate and adverse effects with indirectly versus manually bonded orthodontic brackets: randomized clinical trial.

PÉTER MÁRTON

SEMMELWEIS UNIVERSITY

TOPIC Mechanic

Mechanical and optical properties of enamel and dentin

VISION

Help to define dental esthetics with the academic language of science.

MISSION

Specify what natural-looking means scientifically.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of tooth whitening on enamel structure: a systematic review and meta-analysis.

PROJECT 2: Evaluation of the colour change and patient-oriented outcomes after teeth whitening in in vivo studies: a systematic review and meta-analysis.

ADÉL ESZTER MÓZES

DEPARTMENT OF PEDIATRIC DENTISTRY AND ORTHODONTICS, SEMMELWEIS UNIVERSITY

TOPIC

Exploring HPV-associated diseases in different anatomical areas and their preventive measures

VISION

Decrease the prevalence of HPV caused diseases.

MISSION

Find the best options for HPV prevention and detection.

SPECIFIC GOALS

PROJECT 1: The prevalence of oral HPV infection in cervical HPV-positive women: a systematic review and meta-analysis.

PROJECT 2: Analyzing of the dynamics and trends of HPV infection among couples: an observational study.



DEPARTMENT OF PROSTHODONTICS, SEMMELWEIS UNIVERSITY

TOPIC

Evaluating the mechanical and antipathogenic characteristics of dental polymers

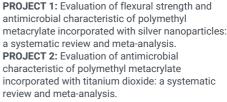
VISION

Decrease the incidence of denture fracture and stomatitis.

MISSION

Development of a denture material with both antipathogenic and good mechanical characteristics.

SPECIFIC GOALS







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ELIAS-LEON NOLDEN

SEMMELWEIS UNIVERSITY

TOPIC

Implication of personalised medicine in maxillofacial surgery

VISION

Customization driven Optimization for better Patient results.

MISSION

Provide better clinical decisions based on research.

SPECIFIC GOALS

PROJECT 1: Comparing Patient-Specific Implants and Stock System in Patients with TMJ-Reconstruction: A systematic review and metaanalysis.

PROJECT 2: Comparing Patient-Specific Implants and Stock System in Patients undergoing cranioplasty: a systematic review and metaanalysis.

FLÓRA HELGA OLASZ

DEPARTMENT OF PAEDIATRIC DENTISTRY AND ORTHODONTICS, SEMMELWEIS UNIVERSITY

TOPIC

Investigating the effectiveness and safetiness of presurgical therapy possibilities for unilateral cleft lip and palate in infants

VISION

Gold standard for presurgical nasoalveolar molding treatment.

MISSION

Research existing techniques and compare them.

SPECIFIC GOALS

PROJECT 1: Investigating the effectiveness and safetiness of presurgical therapy possibilities for unilateral cleft lip and palate in infants: a systematic review and meta-analysis. **PROJECT 2:** Investigating the effectiveness of the modified Grayson's technique: a systematic review and meta-analysis.

PETRA PAPÓCSI

DEPARTMENT OF ORO-MAXILLOFACIAL SURGERY AND STOMATOLOGY, SEMMELWEIS UNIVERSITY

TOPIC

Fixation techniques used in the therapy of jaw fractures

VISION

Learning and utilizing the latest techniques in the case of patients with jaw fractures.

MISSION

TOPIC

crowns

VISION

satisfaction.

MISSION

Using a faster and more comfortable splinting technique during the night duty.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy and safety of the currently used methods in treatment of jaw fractures: a systematic review and meta-analysis. **PROJECT 2:** Investigating the prevalence of different maxillofacial injuries in adults releated to electric scooter or electric bike using: a systematic review and meta-analysis.

ADRIENN PÁL

DEPARTMENT OF PROSTHODONTICS, SEMMELWEIS UNIVERSITY

SPECIFIC GOALS PROJECT 1: Investigating the efficacy of different finish line on ceramic restaurations: a systematic review and meta-analysis.

PROJECT 2: Investigating the effect of wax pattern manufacturing techniques on the marginal fit of lithium disilicate crowns: a systematic review and meta-analysis.

Deliver evidence-based recommendations to dental professionals, guiding their selection of the most appropriate finish line design for ceramic crowns.

Evaluation of tooth preparation designs for ceramic

Offer patients the highest level of precision and accuracy

in dental restorations, ensuring optimal oral health and







AGE

26 years

EDUCATION dentist SUPERVISOR(S) Orsolya Németh E-MAIL **BÁLINT ZSOMBOR** SÁRAI

DENTAL AND ORAL SURGERY TEACHING INSTITUTE, SEMMELWEIS UNIVERSITY

TOPIC

Daily aspect of oral medicine

VISION

Achieve affordable and good oral health for everyone.

MISSION

Make a positive difference in all patients life.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy of steroid and calcineurin inhibitor treatment in Oral Lichen Planus: a systematic review and meta-analysis. **PROJECT 2:** Investigating the efficacy of different methods in detection of oral potentially malignant disorders: a systematic review and meta-analysis.

ZSÓFIA ÉVA VINCZE

DEPARTMENT OF PROSTHODONTICS, SEMMELWEIS UNIVERSITY

TOPIC

Examination of CAD/CAM produced complete dentures

VISION

Resocialise edentulous patients by the help of an aesthetic and well functioning complete denture.

MISSION

Provide a durable and feasible complete denture for edentulous patients.

SPECIFIC GOALS

PROJECT 1: Investigating the mechanical properties of denture base resins: a systematic review and meta-analysis. **PROJECT 2:** Evaluation of microbial adhesion of traditional PMMA resins and CAD/CAM based dentures: a systematic review and meta-analysis.



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GROUP 3 GYNECOLOGY & UROLOGY

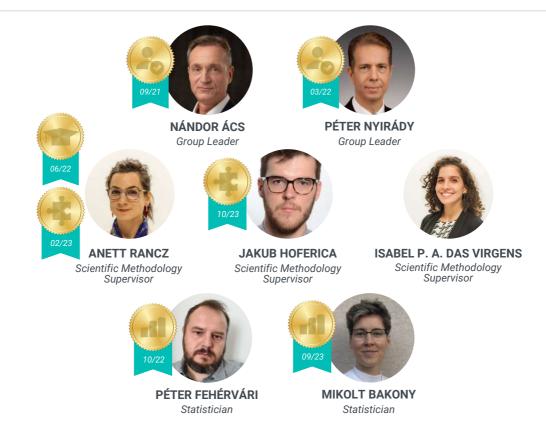




GROUP 3 GYNECOLOGY & UROLOGY

INTRODUCTION TO THE GROUP

The Gynecology and Urology group comprises 13 students and 10 supervisors, collectively engaged in a broad spectrum of medical disciplines such as gynecology, obstetrics, urology, andrology, plastic surgery biostatistics, and physiotherapy. Given their expansive range of interests, the research agenda of this group covers a broad spectrum of topics, including oncoplastic breast surgery, penile and urothelial cancer, postpartum depression, physiotherapy techniques for pelvic pain, risk factors for congenital anomalies, cervical insufficiency, and vaginal microbiota. The group adopts a rigorous multidisciplinary approach aimed at advancing clinical practice and contributing positively to patient outcomes. For this purpose, each student is actively involved in thoroughly conducting a systematic review and meta-analysis. Altogether, this group will conduct 25 of them. Furthermore, some students are involved in conducting registry analysis and international surveys intended to yield substantial evidence of the highest quality within their respective domains. The team's SMS, namely Isabel Amorim, Jakub Hoferica, and Anett Rancz oversee the coordination of an extensive collection of topics. The group is led by Nándor Ács, the president of the Hungarian Society of Gynecology and a well-known international researcher in the field of gynecology with a focus on the investigation of risk factors of congenital anomalies, plastic surgeries, and perimenopausal changes and treatments. Péter Nyirády is the director of the Hungarian Academy of Sciences and an international authority in the field of androided and anomalies, robotic and laparoscopic surgeries.



MEMBERS OF THE GROUP

STUDENTS: Mohammed Altenni, Gökçe Can, András Czébely-Lénárt, Boglárka Fehér, Lőrinc Frivaldszky, Hanna Gizaw, Árpád Ágoston Jankó, Kincső Lőrincz, Loretta Enikő Nyirády, Zihan Suo, Leila Tigharghar, Judit Vargha, Yi Xu

SUPERVISORS: Nándor Ács, Ferenc Bánhidy, János Gidai, Márton Keszthelyi, Zoltán Klárik, Balázs Lintner, Ágnes Mayer, Zsolt Melczer, Petra Nóra Merkely, Péter Nyirády, Péter Riesz, Tibor Szarvas (Supervisor of the month: December 2022, May 2023), Attila Szijártó, Szabolcs Várbíró, Márton Vezér



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AGE 31 years **EDUCATION** medical doctor SUPERVISOR(S) Zsolt Melczer E-MAIL dr.feher.boglarka@gmail.com

MOHAMMED AI TENNI

PÉTERFY SÁNDOR HOSPITAL

TOPIC

Novel Treatment of Advanced Urothelial Cancer

VISION

Serve bladder cancer patients with compassion, professionalism, integrity, and excellence.

MISSION

Provide outstanding clinical treatment for patients with urothelial cancer in a strong academic environment.

GÖKÇE CAN

DEPARTMENT OF PHYSIOTHERAPY, SEMMELWEIS UNIVERSITY

TOPIC

The Role of Various Physiotherapy Modalities in the Treatment of Pelvic Pain Syndromes

VISION

Endometriosis pain will be alleviated with the knowledge of advanced physiotherapy methods.

MISSION

Enhance the quality of physiotherapy treatments for patients, resulting in better patient outcomes and overall well-being.

SPECIFIC GOALS

SPECIFIC GOALS

analysis.

PROJECT 1: Investigating the effectiveness of physiotherapy methods in women with endometriosis-associated pelvic pain: a systematic review and meta-analysis. **PROJECT 2:** Investigating the effectiveness of

PROJECT 1: Identifying patients who would benefit

PROJECT 2: Identifying patients who would benefit

from enfortumab vedotin in advanced urothelial cancer: a systematic review and meta-analysis.

from immune checkpoint inhibitors in advanced

urothelial cancer: a systematic review and meta-

physiotherapy methods in women with menstrual pain: a systematic review and meta-analysis.

ANDRÁS CZÉBELY-LÉNÁRT

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, SEMMELWEIS UNIVERSITY



The application of Enhanced Recovery After Surgery protocol to improve patient outcomes after surgeries

VISION

No patients will undergo unnecessary preoperative interventions.

MISSION

Emphasize leaving the old methods behind based on the Enhanced Recovery After Surgery recommendations.

SPECIFIC GOALS

PROJECT 1: Investigating the patient outcomes in bowel resection surgeries with and without mechanical bowel preparation: a systematic review and meta-analysis.

PROJECT 2: Investigating the advantages of earlyfeeding versus fasting after bowel resection surgeries: a systematic review and meta-analysis.

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Boglárka fehéf	ľ
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DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, SEMMELWEIS UNIVERSITY

TOPIC Altered vaginal flora in pregnancy

VISION

Pregnant women will have better outcomes due to professional prenatal care.

MISSION

To find new possibilities of screening and treatment of genital mycoplasmas in pregnancy.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of genital mycoplasmas on adverse pregnancy outcomes: a systematic review and meta-analysis. **PROJECT 2:** Investigating the effect of different regimens used for bacterial vaginosis on vaginal flora in pregnant women: a systematic review and meta-analysis.







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LŐRINC FRIVALDSZKY

BETHESDA CHILDREN'S HOSPITAL

TOPIC

Novel approaches in prevention of postpartum depression

VISION

Improve quality of life of women undergoing cesarean section.

MISSION

Find pharmacological methods that can prevent postoperative complications and improve the quality of life of women undergoing cesarean section.

hanna gizaw

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, SEMMELWEIS UNIVERSITY

TOPIC

The effect of paternal age on the development of congenital anomalies

VISION

Better antenatal care and higher quality of life for the newborns.

MISSION

TOPIC

VISION

MISSION

Provide evidence on optimal paternal age for having children.

Effect of oral contraceptives on metabolic balance

implications for individuals using these medications.

combination in terms of metabolic parameters.

Find potential physiological changes and long-term health

Identify a high-risk population and determine the optimal

ÁRPÁD ÁGOSTON JANKÓ

SEMMELWEIS UNIVERSITY

SPECIFIC GOALS

PROJECT 1: Investigating the effect of oral contraceptives on carbohydrate metabolism in women of reproductive age: a systematic review and meta-analysis.

PROJECT 2: Investigating the effect of oral contraceptives on lipid metabolism in women of reproductive age: a systematic review and meta-analysis.

KINCSŐ LŐRINCZ

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, SEMMELWEIS UNIVERSITY

TOPIC

Uterine closure layering following cesarean section

VISION

Post-cesarean section women without complications.

MISSION

Finding the c-section closure technique with the least amount of complications.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy and safety of different cesarean section layering techniques: a systematic review and meta-analysis. **PROJECT 2:** Comparison of safety and efficacy between laparoscopic myomectomy and traditional laparotomy for patients with uterine fibroids: a systematic review and meta-analysis.

SPECIFIC GOALS

PROJECT 1: Investigating the influence of paternal age on the development of congenital anomalies: a systematic review and meta-analysis.

PROJECT 2: Investigating the influence of paternal age on the development of congenital anomalies in the Hungarian population between 1980 and 2009: a population based study.



PROJECT 1: Investigating the efficacy and safety of esketamine on postpartum depression in women undergoing cesarean section: a systematic review and meta-analysis.

PROJECT 2: Investigating the efficacy and safety of immediate postpartum administration of long-acting reversible contraception methods: a systematic review and meta-analysis.









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LORETTA ENIKŐ NYIRÁDY

SEMMELWEIS UNIVERSITY

TOPIC

Oncoplastic breast surgery and its clinical significance

VISION

Find the best technique, which results in the safest oncological and the best aesthetic outcome.

MISSION

To aim for perfection in breast reconstruction.

SPECIFIC GOALS

PROJECT 1: Investigating the safety and effectiveness of volume displacement and replacement techniques in oncoplastic breast-conserving surgery: a systematic review and meta-analysis.

PROJECT 2: Investigating the safety and effectiveness of polyurethane breast implants compared to alternatives in high risk population: a systematic review and meta-analysis.

ZIHAN SUO

IMPERIAL COLLEGE LONDON

TOPIC

The relation between maternal factors and birth defects

VISION

Increased mother awareness and education and fewer cardiac birth defects.

MISSION

Provide closer maternity counseling to prevent cardiac birth defects.

SPECIFIC GOALS

PROJECT 1: Investigating the association between maternal risk factors and cardiac birth defects: a systematic review and meta-analysis. **PROJECT 2:** Investigating the association between maternal medication and cardiac birth defects: a systematic review and meta-analysis.

LEILA TIGHARGHAR

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, SEMMELWEIS UNIVERSITY

TOPIC

The risk factors of preterm birth and their management

VISION

Make cervical insufficiency an easily manageable disease.

MISSION

Find the most effective treatment for cervical insufficiency by applying up to date scientific results.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy of different therapeutic modalities for cervical insufficiency on prevention of preterm birth: a systematic review and meta-analysis.

PROJECT 2: Investigating he link between cervical insufficiency and the development of pelvic organ prolapse: a systematic review and meta-analysis.

JUDIT VARGHA

DEPARTMENT OF UROLOGY, SEMMELWEIS UNIVERSITY

TOPIC

Novel treatment approaches in penile cancer

VISION

Improving the life expectancy of patients with penile cancer.

MISSION Searching for a more effective therapy for advanced penile cancer patients.

SPECIFIC GOALS

PROJECT 1: Comparing efficacy and safety of immunotherapy or chemotherapy in penile cancer patients: a systematic review and meta-analysis. **PROJECT 2:** Investigating the effectiveness and safety of penile cancer immunotherapy versus chemotherapy, PENCIL study: International survey.









AGE 41 years EDUCATION surgeon SUPERVISOR(S) Tibor Szarvas E-MAIL yixu@wmu.edu.cn

YI XU

QUZHOU PEOPLE'S HOSPITAL, WENZHOU MEDICAL UNIVERSITY



TOPIC

Therapy Predictive Markers in Urothelial Carcinoma

VISION patients.

MISSION

Deliver scientifically empowered practice & care for cancer

Extract best evidence from clinical & laboratory data

through critical appraisal & evaluation.

SPECIFIC GOALS

PROJECT 1: Investigating Therapy Predictive Markers in Patients with Urothelial Carcinoma Receiving Immune Checkpoint Inhibitors: A Systematic Review and Meta-analysis. PROJECT 2: Updates on Previous Meta-Analysis of the Management of Urachal Carcinoma: a systematic review and meta-analysis.

GROUP 4 MISCELLANEOUS



INTRODUCTION TO THE GROUP

The Miscellaneous group is spear-headed by Andras Attila Horvath and Szabolcs Keri, expert neurocognitive researchers. However, the group's 6 students deal with various topics, ranging from psychiatric and neurological topics to orthopedics, and receive additional guidance from a further four supervisors. Among the topics investigated are dementia and cognitive impairment, including the intersection of metabolic disturbances and schizophrenia, neurological imaging in a setting of stroke, and motion and gait analysis both for healthy persons and cerebral paresis patients. In total, 12 projects are ongoing in this group; 11 are systematic reviews and meta-analyses, one randomized clinical trial, and two registry analyses.

MEMBERS OF THE GROUP



STUDENTS: Azamat Bissenov, Alexander Kancsev, Tímea Lázár, Eszter Radics, Eszter Éva Virág-Tulassay, Esra Zhubi

SUPERVISORS: Orsolya Gresits, Bence Gunda, András Attila Horváth, Szabolcs Kéri, Tamás Terebessy (Supervisor of the month: October 2022), Gábor Skaliczki



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AZAMAT BISSENOV

DEPARTMENT OF ORTHOPEADICS. SEMMELWEIS UNIVERSITY

TOPIC

Mobile motion analysis

VISION

High quality health-conscious behavior and personalized medical care for disabled people.

MISSION

Widespread use of mobile motion analysis for easier diagnose and more accurate treatment of musculoskeletal disorders

SPECIFIC GOALS

PROJECT 1: Comparing inertial measurementbased motion tracking results with 3D gait analysis results: a systematic review and meta-analysis. **PROJECT 2:** Investigating the ffectiveness of Constraint-Induced Movement Therapy (CIMT) for Gait Improvement in Children with Cerebral Palsy: A Systematic Review and Meta-Analysis.

ALEXANDER KANCSEV

JÓSA ANDRÁS HOSPITAL NYÍREGYHÁZA

TOPIC

The association between metabolic syndrome and cognitive dysfunctions in schizophrenia

VISION

Schizophrenia being a managable condition compatible with a fulfilling life.

MISSION

Understand the relationship between metabolism and cognitive dysfunctions in schizophrenia.

TÍMEA I Á7ÁR

UNIVERSITY OF PÉCS

TOPIC

The utility of risk scores in the prediction of dementia in adults

VISION

All dementia cases can be predicted before the onset of symptoms.

MISSION

Find the best risk score to accurately predict dementia.

PROJECT 1: Investigating the predictive value of dementia risk scores in adults: a systematic review and meta-analysis.

PROJECT 2: Determining the most influential components of dementia risk scores in adults: Machine-learning based cohort analysis.

ESZTER RADICS

DEPARTMENT OF ANATOMY, HISTOLOGY AND EMBRYOLOGY, SEMMELWEIS UNIVERSITY



The link between cognitive training and neuroplasticity in mild cognitive impairment

VISION

All preventable dementia cases are prevented.

MISSION

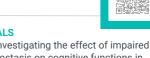
Evaluate and optimize cognitive trainings to delay or prevent dementia.

SPECIFIC GOALS

PROJECT 1: Investigating the effectiveness of cognitive training in adults: a systematic review and meta-analysis.

PROJECT 2: Investigating the effectiveness of cognitive training in adults: Post-hoc analysis of a randomized clinical trial.





SPECIFIC GOALS PROJECT 1: Investigating the effect of impaired glucose homeostasis on cognitive functions in

schizophrenia: a systematic review and metaanalysis.

PROJECT 2: Evaluating the association between cognition, visual dysfunctions and metabolic syndrome in Schizophrenia: Analysis and development of a Hungarian database.











27 years **EDUCATION**

medical doctor

SUPERVISOR(S) Gábor Skaliczki E-MAIL

ESZTER ÉVA VIRÁG-TULASSAY

DEPARTMENT OF ORTHOPAEDICS, SEMMELWEIS UNIVERSITY

TOPIC

Comparison of different therapies for acute anterior shoulder dislocation

VISION

Finding the most optimal treatment for acute anterior shoulder dislocation.

MISSION

Compare therapies considered internationally suitable.

SPECIFIC GOALS

PROJECT 1: Comparison of different therapies for acute anterior shoulder dislocation: a systematic review and meta-analysis.

PROJECT 2: Comparison of different therapies for recurrent anterior shoulder dislocation: a systematic review and meta-analysis.

ESRA ZHUBI

DEPARTMENT OF NEUROLOGY, UNIVERSITY CLINICAL CENTER OF KOSOVO



TOPIC

Treatment of ischemic stroke

VISION

Early treatment of stroke and disability-free patients.

MISSION

Make a meaningful impact on stroke prevention and treatment through extensive research.

SPECIFIC GOALS

PROJECT 1: Investigating the predictive accuracy of magnetic resonance imaging (MRI) for worse outcomes in stroke patients who underwent intravenous thrombolysis (IVT): a systematic review and meta-analysis.

PROJECT 2: Comparing Tenecteplase and Alteplase in intravenous thrombolysis (IVT) bridging therapy for large vessel occlusion (LVO) strokes: a systematic review and meta-analysis.



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AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Bence Gunda E-MAIL esrazhubi@gmail.com

GROUP 5 DERMATOLOGY & IMMUNOLOGY

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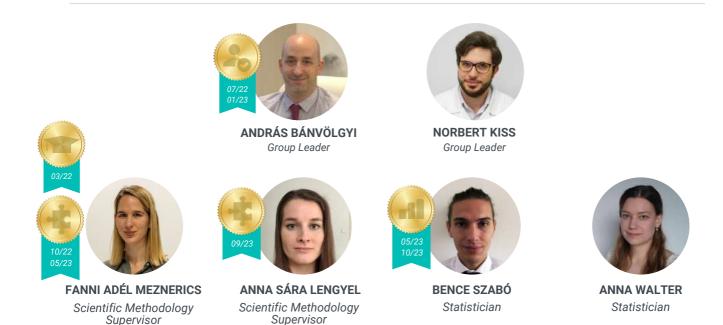
GROUP 5 DERMATOLOGY & IMMUNOLOGY WEDNESDAY, 1 PM - 3 PM

INTRODUCTION TO THE GROUP



The Dermatology-Immunology research group led by András Bánvölgyi and Norbert Kiss includes 8 students and 8 supervisors dedicated to advancing our understanding of the interplay between the immune system and skin health. The team is committed to translating scientific findings into practical applications for patient care, currently overseeing a total of 16 ongoing projects, which encompass 15 systematic reviews and meta-analyses and one registry analysis. Our research involves a wide range of dermatology and immunology topics, including autoimmune skin disorders, allergic reactions, infectious diseases, skin malignancies, and teledermatology. Our clinicians collaborate closely with basic scientists to bridge the gap between bench and bedside, ultimately working towards the development of targeted immunotherapies for dermatological conditions.

MEMBERS OF THE GROUP



STUDENTS: Alzahra Ahmed Mohammed, Renáta Árok, Laura Anna Bokor, Lili Gulyás, Andrea Lancz, Katalin Martyin, István Szondy, Noémi Nóra Varga

SUPERVISORS: András Bánvölgyi, Bernadett Hidvégi, Lajos Kemény, Norbert Kiss, Zsuzsanna Kurgyis, Kende Kálmán Lőrincz, Márta Medvecz, Fanni Adél Meznerics



AGE

23 years

Kurgyis E-MAIL

AGE

35 years

E-MAIL

AGE

25 years

EDUCATION

medical doctor

SUPERVISOR(S)

Bernadett Hidvégi, András Bánvölgyi E-MAIL

EDUCATION

pharmacist

SUPERVISOR(S)

Fanni Adél Meznerics

renaro0207@gmail.com

Norbert Kiss, András Bánvölgyi,

EDUCATION medical student

SUPERVISOR(S) Lajos Kemény, Zsuzsanna

alzahramkhalid@gmail.com

ALZAHRA AHMED MOHAMMED

SEMMELWEIS UNIVERSITY

TOPIC

The management of vitiligo

VISION

Improve the quality of life of vitiligo patients.

MISSION

Enhancing vitiligo treatment by bridging basic science with clinical care.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy and safety of the use of JAK inhibitors in the treatment of vitiligo: a systematic review and meta-analysis. **PROJECT 2:** Investigating the prevalence of cancers in vitiligo patients: a systematic review and meta-analysis.

RENÁTA ÁROK

BAJCSY-ZSILINSZKY HOSPITAL AND CLINIC

TOPIC

New approaches in the management of dermatological side effects caused by targeted oncological therapies

VISION

Patients treated with targeted oncology therapy could have a better quality of life.

MISSION

Finding new approaches to manage skin toxicity adverse events and providing to patients appropriate advices for skin care.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy of preventive and therapeutic options for kinase inhibitory therapy-induced skin toxicity: a systematic review and meta-analysis. **PROJECT 2:** Comparing the efficacy and safety treatment of cutaneous squamous cell carcinoma: a systematic review and meta-analysis.

LAURA ANNA BOKOR

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY AND DERMATOONCOLOGY, SEMMELWEIS UNIVERSITY



TOPIC Clinicopathological evaluation of cutaneous lupus

VISION

Improve the quality of life of patients suffering from cutaneous lupus.

MISSION

Find more efficient therapeutic options for cutaneous lupus.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy and safety of different therapeutical options in cutaneous lupus: a systematic review and meta-analysis. **PROJECT 2:** Investigating the epidemiological background of cutaneous lupus: a systematic review and meta-analysis.



bokor.laura@gmail.com

AGE 25 years EDUCATION medical doctor SUPERVISOR(S) Kende Kálmán Lőrincz, András Bánvölgyi E-MAIL gulyaslili1998@gmail.com

LILI GULYÁS

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY AND DERMATOONCOLOGY, SEMMELWEIS UNIVERSITY

TOPIC

Biomarkers in the Diagnosis and Prognosis of Cutaneous Melanoma

VISION

Improve the monitoring of skin diseases to increase patient survival and therapeutic efficacy.

MISSION

Identify the most effective serum biomarkers for disease monitoring.

SPECIFIC GOALS

PROJECT 1: Investigating the predictive value of different biomarkers for post-diagnostic events in malignant melanoma: a systematic review and meta-analysis.

PROJECT 2: Investigating Safety and Efficacy of Systemic Therapies in Locally Advanced and Metastatic Basal Cell Carcinoma: a systematic review and meta-analysis.









AGE 35 years **EDUCATION** medical doctor SUPERVISOR(S)

András Bánvölgyi, Norbert Kiss, Fanni Adél Meznerics E-MAIL

andrea.lancz@gmail.com



AGE 24 years EDUCATION medical doctor SUPERVISOR(S) András Bánvölgyi, Norbert Kiss E-MAIL martyinkata@gmail.com



AGE 25 years **EDUCATION** medical doctor SUPERVISOR(S) András Bánvölgyi E-MAIL

szondyisti1@gmail.com



AGE 25 years EDUCATION medical doctor SUPERVISOR(S) Norbert Kiss, Márta Medvecz E-MAIL 98mimma@gmail.com



ANDREA LANCZ

TEACHING HOSPITAL MARKUSOVSZKY, SZOMBATHELY

TOPIC

Management of itching: new insights in the treatment of urticaria and prurigo nodularis

VISION

Patients with prurigo nodularis could have a better quality of life.

MISSION

TOPIC

VISION

MISSION

teledermatology.

Optimizing the treatment of prurigo nodularis.

New insights into the application of teledermatology

The latest technological improvements should be

implemented in patient care as soon as possible.

Providing reliable data to facilitate the widespread use of

SPECIFIC GOALS

PROJECT 1: Comparing the safety and efficacy of biologics in prurigo nodularis: a systematic review and meta-analysis.

PROJECT 2: Investigating the safety and efficacy of biologics in chronic urticaria: a systematic review and meta-analysis.

KATALIN MARTYIN

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY AND DERMATOONCOLOGY, SEMMELWEIS UNIVERSITY



SPECIFIC GOALS

PROJECT 1: Comparing the diagnostic accuracy of teledermatology systems to face-to-face examination in the diagnosis of skin diseases: A systematic review and meta-analysis. **PROJECT 2:** Investigating the diagnostic accuracy of artificial intelligence systems in diagnosis of skin diseases: a systematic review and metaanalysis.

ISTVÁN SZONDY

DEPARTMENT OF DERMATOLOGY. VENEREOLOGY AND DERMATOONCOLOGY. SEMMELWEIS UNIVERSITY

TOPIC

The role of prevention and early interventions in autoinflammatory and venereal diseases

VISION

Prevent complications with prevention and early interventions in autoinflammatory and venereal diseases.

MISSION

Help the translation of pioneering therapeutic interventions into clinical practice.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy and safety of doxycycline pre-exposure and post-exposure prophylaxis in preventing sexually transmitted infections: a systematic review and meta-analysis. PROJECT 2: Investigating the efficacy and safety of pharmacologic and surgical interventions in hidradenitis suppurativa: a systematic review and meta-analysis.

NOÉMI NÓRA VARGA

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY AND DERMATOONCOLOGY, SEMMELWEIS UNIVERSITY

TOPIC

Innovative multimodal imaging techniques in dermatology

VISION

Improving the survival of skin tumors.

MISSION

Promoting the implementation of novel imaging techniques in clinical practice.

SPECIFIC GOALS

PROJECT 1: Comparing the efficacy of imaging modalities for the diagnosis of malignant melanoma: A systematic review and meta-analysis. PROJECT 2: Comparing the diagnostic accuracy of imaging techniques for assessing Breslow thickness in malignant melanoma: a systematic review and meta-analysis.





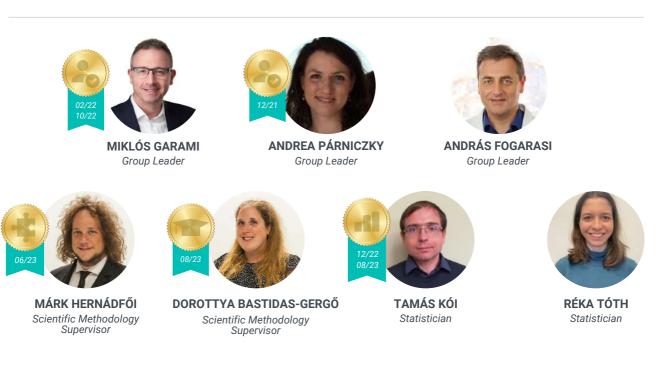
GROUP 6 PEDIATRICS



INTRODUCTION TO THE GROUP

For the 2023/24 academic year, our pioneering pediatric group includes 12 students and 7 supervisors, each with a unique mastery of different medical fields. Alongside resident doctors, this group includes pediatricians, conductive educators, pharmacists, and psychiatrists, broadening the scope of expertise within our ranks. Their research is diverse, encompassing areas such as pediatric oncology, gastroenterology, neurology, psychiatry, rare genetic disorders, and conductive education. This cohort is a tapestry of national talent, with students joining us from across the country's esteemed institutions, including the Pediatric Center of Semmelweis University, Heim Pál National Institute of Pediatrics, Bethesda Children's Hospital, Pető András Institute, Institute of Genomic Medicine and Rare Disorders, Bács-Kiskun County Hospital, and the addition of a distinguished student from Syria. Our students embarked on their academic voyage with systematic reviews, while also designing clinical trials, registry analyses, and international surveys, addressing pivotal questions in their specialized fields. The group's Scientific Methodology Supervisors; Dorottya Bastidas-Gergő and Márk Hernádfői, are instrumental in refining the methodological quality of these projects. At the helm of this gifted group are Andrea Párniczky, András Fogarasi, and Miklós Garami, each a luminary in their own right, known for their significant contributions to both research and clinical practice in their individual specialties and in the broader field of pediatrics.

MEMBERS OF THE GROUP



STUDENTS: Seba Aljomaa, Miklós Bartók, Nóra Beke, Blanka Rebeka Bódy, Barbara Csendes, Judit Xenia Jockers, Emese Kasznár, Dorottya Kenesei, Tímea Lőrincz-Molnár, Regina Molnár, Anita Pfeffer, Krisztina Szalkay, Ádám Szilágyi

SUPERVISORS: Kinga Farkas, András Fogarasi, Miklós Garami, Mária Judit Molnár, Katalin Müller (Supervisor of the month: February 2023), Klementina Ocskay (Supervisor of the month: October 2023), Andrea Párniczky, Márta Szegedi, Dóra Török, Andrea Zsebe



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33 years

AGE

34 years

EDUCATION

medical doctor

SUPERVISOR(S) Miklós Garami E-MAIL

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EDUCATION

pharmacist SUPERVISOR(S) Miklós Garami E-MAIL

SEBA ALJOMAA

SEMMELWEIS UNIVERSITY

TOPIC

Novel Digital Health Approaches in Oncology

VISION

Improve quality of life in oncology via new approaches.

MISSION

Finding the best digital health interventions for cancer patients.

SPECIFIC GOALS

PROJECT 1: Comparing the Effect of Digital Health Interventions on the Quality of Life of Individuals Facing Cancer: Systematic Review and Metaanalysis.

PROJECT 2: Hungarian Adaptation and Validation of the Hematology/Oncology Module of the Pediatric Quality of Life Inventory (PedsQL): Cultural Adaptation and Pilot Study.

MIKLÓS BARTÓK

BÁCS KISKUN COUNTY HOSPITAL SZTE ÁOK TEACHING HOSPITAL KALOCSA SITE; NEONATAL, INFANT AND CHILDREN'S DEPARTMENT



The Importance of Social Determinants in Childhood Patient with Malignancies

VISION

Prevent Childhood Malignancies.

MISSION

Identify and Eliminate Contributing Factors

SPECIFIC GOALS

PROJECT 1: Association Between Socioeconomic Measures and the Risk of Childhood Malignancies: a systematic review and meta-analysis. **PROJECT 2:** Investigating Glutamine Effect on Oral Mucositis in Childhood Cancer Patient: Randomized Controlled Trial.

NÓRA BFKF

PEDIATRIC CENTER, TŰZOLTÓ STREET DEPARTMENT, SEMMELWEIS UNIVERSITY

TOPIC

Treatment Related Cardiotoxicity in Pedatric Oncology

VISION

Cancer patients should have good life quality without heart complications.

MISSION

Cancer patients should have good life quality without heart complications.

SPECIFIC GOALS

PROJECT 1: Comparing the Diagnostic Tools Accuracy for Early Detection of Cardiac Failure in Pedatric Oncology: Systematic Review and Metaanalysis

PROJECT 2: Investigating The Long-term Side Effects of Additional Cardioprotective Dexrazoxane During Chemotherapy in Childhood Cancer Survivors: Systematic Review and Meta-analysis.

BLANKA REBEKA BÓDY

HEIM PÁL CHILDREN'S HOSPITAL

TOPIC

The role of gut microbiota in cystic fibrosis

VISION

Offer a complication-free life for people with cystic fibrosis.

MISSION

Investigating the role of gut microbiota in the disease.

SPECIFIC GOALS

PROJECT 1: Comparing the gut microbiota in cystic fibrosis patients and healthy individuals: a systematic review and meta-analysis. PROJECT 2: Investigation of gut dysbiosis in cystic fibrosis patients according to glucose tolerance status: Registry analysis.









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AGE 26 years **EDUCATION** medical doctor SUPERVISOR(S) Andrea Párniczky, Klementina Ocskay E-MAIL body7991@gmail.com









30 years

Szegedi E-MAIL

AGE

28 years EDUCATION

E-MAIL

AGE

25 years

EDUCATION

medical doctor

SUPERVISOR(S) Katalin Müller E-MAIL

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medical doctor

Miklós Garami

SUPERVISOR(S)

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EDUCATION medical doctor

SUPERVISOR(S) Mária Judit Molnár, Márta

csbaboka@gmail.com

BARBARA CSENDES

INSTITUTE OF GENOMIC MEDICINE AND RARE DISORDERS, SEMMELWEIS UNIVERSITY

TOPIC

Impact of new genomic technologies on patient care

VISION

Boost the effective utilization of genomic technologies.

MISSION

Recommend, develop, and support educational and financial policies.

SPECIFIC GOALS

PROJECT 1: Investigating the effectiveness, safety and costs of orphan medicinal products in spinal muscular atrophy: a systematic review and meta-analysis.

PROJECT 2: Investigating the health-economical impact of orphan medicinal products for patients with spinal muscular atrophy: Prospective follow-up study.

JUDIT XENIA JOCKERS

PEDIATRIC CENTER, TŰZOLTÓ STREET DEPARTMENT, SEMMELWEIS UNIVERSITY



TOPIC Investigating the association between the genotype and phenotype of pediatric patients with polyposis syndromes

VISION

Improving the quality of life and enhancing chances of survival in patients with polyposis syndrome.

MISSION

Develop a more accurate diagnostic and management protocol by monitoring through the genotype-phenotype association.

EMESE KASZNÁR

HEIM PÁL CHILDREN'S HOSPITAL

TOPIC

Physical activity in inflammatory bowel disease

VISION

Improve the management and quality of life of inflammatory bowel disease patients.

MISSION

Encourage inflammatory bowel disease patients to exercise for reducing disease burden.

SPECIFIC GOALS

PROJECT 1: Develop a more accurate diagnostic and management protocol by monitoring through the genotype-phenotype association: a systematic review and meta-analysis.

SPECIFIC GOALS

PROJECT 1: Investigating changes in disease activity and quality of life after physical exercise intervention in patients with inflammatory bowel disease: a systematic review and meta-analysis. **PROJECT 2:** Comparing physical activity between inflammatory bowel disease patients and healthy control: a systematic review and meta-analysis.



DOROTTYA KENESEI

ANDRÁS PETŐ FACULTY SEMMELWEIS UNIVERSITY

TOPIC

Investigating the Effectiveness of Different Theraeputical Modalities in Cerebral Palsy

VISION

Improving the holistic care of people with cerebral palsy.

MISSION

Assessing the most effective therapies for people living with cerebral palsy.

SPECIFIC GOALS

PROJECT 1: Investigating the effectiveness of different theraeputical modalities in cerebral palsy: a systematic review and meta-analysis. **PROJECT 2:** Investigating the Effect of Interval Conductive Pedagogical Rehabilitation among People with Cerebral Palsy: A Protocol of a Clinical Trial.

AGE 33 years EDUCATION conductor SUPERVISOR(S) András Fogarasi, Andrea Zsebe E-MAIL dorottya.kenesei@gmail.com





AGE 26 years **EDUCATION** medical doctor SUPERVISOR(S) András Fogarasi E-MAIL lorincz.molnar.timea @gmail.com



AGE 25 years **EDUCATION** medical doctor SUPERVISOR(S) Andrea Párniczky, Klementina Ocskay E-MAIL reginamolnar23@gmail.com



AGE 27 years **EDUCATION** medical doctor SUPERVISOR(S) Miklós Garami, Dóra Török E-MAIL anita.pfeffer96@gmail.com



AGE 46 years **EDUCATION** medical doctor SUPERVISOR(S) Kinga Farkas E-MAIL szalkayk@gmail.com

TÍMEA I ŐRINCZ-MOI NÁR

BETHESDA CHILDREN'S HOSPITAL

TOPIC

Develop a more accurate diagnostic and management protocol by monitoring through the genotype-phenotype association

VISION

Help children and their families dealing with neurological disorders.

MISSION

Improve the diagnosis of paroxysmal events in childhood.

REGINA MOLNÁR

HEIM PÁL NATIONAL INSTITUTE FOR CHILDREN

TOPIC

New insights into the developement of abnormal glucose tolerance in cystic fibrosis patients

VISION

One day cystic fibrosis-related diabetes will not worsen the life quality of cystic fibrosis patients.

MISSION

Providing new screening strategy for earlier diagnosis of cystic fibrosis-related abnormal glucose tolerance.

SPECIFIC GOALS

PROJECT 1: Identification of Predictive Factors for Paroxysmal Nonepileptic Events Based on Video-EEG Monitoring: A Systematic Review and Metaanalysis.

PROJECT 2: Comparative Analysis of Paroxysmal Nonepileptic Events and Epileptic Seizures in Childhood Based on a Tertiary Centre Video-EEG Registry: Cohort analysis.

SPECIFIC GOALS

PROJECT 1: Investigating the Prevalence of islet autoantibodies in cystic fibrosis: a systematic review and meta-analysis.

PROJECT 2: Comparison of islet autoantibody levels in cystic fibrosis children with different glucose tolerance status: Cohort analysis.

ANITA PFEFFER

PEDIATRIC CENTER TŰZOLTÓ STREET DEPARTMENT, SEMMELWEIS UNIVERSITY

TOPIC

Short-term and long-term endocrine effects and side effects of pediatric oncological diseases and their treatment

VISION

Improve the survival and life quality of oncological patients.

MISSION

TOPIC

VISION

MISSION

interventions.

Identify the least harmful and most effective therapeutical opportunities for oncological patients.

spectrum disorder - From background to tailored treatment

Equality for autistic children and their families.

Background clarification for the most effective

SPECIFIC GOALS

PROJECT 1: Comparing the Effectiveness and Safety of Available Therapies in Adrenocortical Carcinoma: A Systematic Review and Metaanalysis.

KRISZTINA SZALKAY

BETHESDA CHILDREN'S HOSPITAL

SPECIFIC GOALS

PROJECT 1: Investigating the sensory aspects of eating and feeding disorders in autism: a systematic review and meta-analysis. PROJECT 2: Investigating The effect of autism on developing eating and feeding disorder among patients with sensory processing difficulties: International survey initiation.













AGE 26 years EDUCATION biotechnologist SUPERVISOR(S) Miklós Garami E-MAIL sziladam97@gmail.com

ÁDÁM SZILÁGYI

CENTRE FOR TRANSLATIONAL MEDICINE, SEMMELWEIS UNIVERSITY



TOPIC The Biotechnological Improvements of Clinical Hematooncology

VISION

Provide new therapeutic solutions in hemato-oncology.

MISSION

Show the big picture of our current knowledge about a novel therapeutic option's (CAR T cells) utility in clinical level.

SPECIFIC GOALS PROJECT 1: Comparing efficacy and toxicity of CAR T-cell versus conventional therapy in hematooncology: a systematic review and meta-analysis. PROJECT 2: -

GROUP 7 GASTROENTEROLOGY

GROUP 7 GASTROENTEROLOGY

INTRODUCTION TO THE GROUP

This group includes 17 students conducting research on diverse projects within the gastroenterology field. The research projects are centered on various aspects of pancreatology, addressing topics such as pancreatitis, pancreatic cancer, pancreatic insufficiency, radiology, and psychology. Additionally, certain projects explore the correlation between cardiology and pancreatology. Also, there are projects focusing on colorectal cancer and surgery, examining multiple oncological outcomes. A special section of the group deals with space and sports physiology, investigating diseases and physiological alterations related to spaceflight and the normal physiological nutritional states in athletes. Within this group, there are a total of 34 ongoing projects, including 27 systematic reviews and meta-analyses, 4 registry analyses, and 3 prospective observational clinical studies. There are four methodology supervisors in this group guiding the students in their research projects: Mahmoud Obeidat, Marie Engh, Anett Rancz, and Eszter Szalai. The team overseeing these projects involves 12 supervisors, including two group leaders, Péter Hegyi and Bálint Erőss. These supervisors bring expertise in various fields, such as gastroenterology, pancreatology, surgery, radiology, nutrition, and pharmacy.

MEMBERS OF THE GROUP



STUDENTS: Viktória Barna, Maria Bucur, Ioana Creanga-Murariu, Dominika Csajbok, Orsolya Eperjesi, Tibor Dániel Fehér, Ágnes Fodor, Emese Fürst, Luca Havelda, Dalma Köves-Dobszai, Jimin Lee, Veronika Lillik, Amir Makolli, Jázmin Németh, Zsuzsanna Pásztorné Benyó, Ioana-Irina Rezuş, Lőrinc András Ulmann

SUPERVISORS: Szabolcs Ábrahám, Stefania Bunduc, Orsolya Dohán, Bálint Erőss, Péter Ferdinandy, Péter Hegyi, Rita Nagy, Renáta Papp, Nóra Sydó, Andrea Szentesi, Ákos Szűcs, Bogdan Ionel Tamba, Brigitta Teutsch (Supervisor of the month: August 2023)



AGE 45 years EDUCATION dietitian SUPERVISOR(S) Péter Ferdinandy, Nóra Sydó, Renáta Papp E-MAIL barna.viktoria2@semmelweis.hu



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Péter Hegyi, Stefania Bunduc E-MAIL mariaa.bucur94@gmail.com



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Péter Hegyi, Stefania Bunduc, Bogdan Ionel Tamba E-MAIL ioana.creanga@d.umfiasi.ro



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Orsolya Dohán E-MAIL cs.domy@gmail.com

VIKTÓRIA BARNA

CENTRE FOR TRANSLATIONAL MEDICINE, SEMMELWEIS UNIVERSITY

TOPIC

Sport-specific biomarkers of endurance and strength sports

VISION

Empower athletes to achieve peak performance and optimal health.

MISSION

TOPIC

VISION

MISSION

Translate science into practical, actionable recommendations for athletes, coaches, and sports professionals.

Diabetes mellitus across pancreatic diseases

Improve prognosis of pancreatic disease patients by

Decrease the burden of Diabetes Mellitus.

achieving well-controlled Diabetes Mellitus.

SPECIFIC GOALS

PROJECT 1: Investigating changes in biomedical parameters in endurance and strength training in healthy population: a systematic review and meta-analysis.

PROJECT 2: Investigating changes in body mineral and vitamin levels in endurance and strength training in healthy population: a systematic review and meta-analysis.

MARIA BUCUR

NATIONAL INSTITUTE OF DIABETES, NUTRITION AND METABOLIC DISEASES "N.C PAULESCU", BUCHAREST, ROMANIA



SPECIFIC GOALS

PROJECT 1: Investigating therapeutic options for preventing/delaying Diabetes Mellitus in prediabetic patients: a systematic review and meta-analysis.

PROJECT 2: Investigating the beta cell function failure during acute pancreatitis: registry analysis.

IOANA CREANGA-MURARIU

"GRIGORE T. POPA" MEDICINE AND PHARMACY UNIVERSITY / REGIONAL INSITUTE OF ONCOLOGY, IASI

TOPIC

Cannabinoids in the landscape of cancer

VISION

Improved quality of life for cancer patients.

MISSION

Decreasing disease burden in cancer patients.

SPECIFIC GOALS

PROJECT 1: Investigating the safety and efficacy of cannabinoids in cancer patients: a systematic review and meta-analysis. **PROJECT 2:** Investigating the antitumor activity of proversion in the investigating the advector effects.

cannabinoids in preclinical models: Systematic Review and Meta-analysis.

DOMINIKA CSAJBOK

INSTITUTE OF PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY

TOPIC

Diagnostic evaluations of low-grade Pancreatic Neuroendocrine Tumors

VISION

Improved diagnostic evaluation of Pancreatic Neuroendocrine tumors.

MISSION

Identifying the most effective diagnostic approaches for pancreatic neuroendocrine tumors.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of different therapeutic approaches in pancreatic neuroendocrine tumors with liver metastases: a systematic review and meta-analysis.
PROJECT 2: Assessing the diagnostic accuracy of pancreatic neuroendocrine tumors imaging techniques: a systematic review and meta-analysis.











AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Péter Hegyi, Stefania Bunduc E-MAIL eperjesiorsi1348@gmail.com



AGE 31 years EDUCATION psychologist SUPERVISOR(S) Péter Hegyi, Rita Nagy F-MAII fehertibordaniel@gmail.com



AGE 34 years EDUCATION medical doctor SUPERVISOR(S) Szabolcs Ábrahám E-MAIL drfodoragi@gmail.com



AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Bálint Erőss E-MAIL emese.fuerst@gmail.com

ORSOLYA EPERJESI

DEPARTMENT OF INTERNAL MEDICINE, TOLDY FERENC HOSPITAL

TOPIC

The importance of pancreatic exocrine insufficiency in pancreatic diseases

VISION L

MISSION

Optimization of pancreatic enzyme replacement therapy management in early post-acute pancreatitis patients.

SPECIFIC GOALS

PROJECT 1: Investigating the effects of PERT after Acute Pancreatitis: A Systematic Review and Metaanalysis.

PROJECT 2: Investigating the predictive risk factors of pancreatic exocrine insufficiency after acute pancreatitis: a systematic review and metaanalysis.

PROJECT 1: Investigating the prevalence of anxiety

and depression in patients with pancreatitis: a systematic review and meta-analysis.

PROJECT 2: Investigating the Risk Factors of

Anxiety and Depression in Acute Pancreatitis

Patients: A Prospective Observation Study.

TIBOR DÁNIEL FEHÉR

INSTITUTE OF PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY



TOPIC The Importance of Social Psychoneuroimmunology in **Chronic Pancreatitis**

VISION

Patient-care where GI problems will be better prevented, mitigated and cured by a psychosocial medicine.

MISSION

The development of psychosocial interventions and prevention programs.

AGNES FODOR

DEPARTMENT OF SURGERY, DÉL-BUDAI CENTRAL HOSPITAL SZENT IMRE UNIVERSITY TEACHING HOSPITAL

TOPIC

Investigating the oncological outcomes after colorectal cancer surgery

VISION

Improve the care and the outcomes for patients after colorectal cancer surgery.

MISSION

TOPIC

VISION

MISSION

accessible.

Investigate the impact of anastomotic leakage on oncological outcomes after colorectal cancer surgery.

New insight on secretin-enhanced MRCP in

Make good use of all available diagnostic modalities in

Improve the diagnostic algorithm and make it more

SPECIFIC GOALS

SPECIFIC GOALS

PROJECT 1: Investigating the effect of anastomotic leakage on oncological outcomes in patients after colorectal cancer surgery: a systematic review and meta-analysis. **PROJECT 2:** Investigating the Role of Intraoperative Colonoscopy to Detect Anastamotic Leakage in Colorectal Cancer Surgery: A Systematic Review and Meta-analysis.



pancreatobiliary pathologies

different pancreatic conditions.

INSTITUTE OF PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY

SPECIFIC GOALS PROJECT 1: Investigating the diagnostic accuracy of secretin-enhanced MRCP in pancreaticobiliary pathologies: a systematic review and metaanalysis

PROJECT 2: Investigating the risk factors and impact on the outcomes of disrupted pancreatic duct in patients with acute pancreatitis: a prospective observational study













AGE 26 years EDUCATION dietitian SUPERVISOR(S) Péter Hegyi, Andrea Szentesi E-MAIL haveldaluca97@gmail.com



AGE 27 years EDUCATION healthcare manager SUPERVISOR(S) Péter Hegyi, Andrea Szentesi E-MAIL dobszai.dalma@gmail.com



AGE 23 years EDUCATION medical student SUPERVISOR(S) Péter Hegyi, Stefania Bunduc E-MAIL jmnlee10@gmail.com



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Péter Hegyi, Rita Nagy E-MAIL lillikvera@gmail.com



LUCA HAVELDA

INSTITUTE OF PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY

TOPIC

The impact of triglyceride level on the risk and outcome of different diseases

VISION

Contribute to the prevention of all preventable diabetes.

MISSION

Provide evidence-based and valuable data to help prevent diabetes.

SPECIFIC GOALS

PROJECT 1: Investigating the effects of different triglyceride levels on the development of diabetes mellitus: Systematic Review and Meta-analysis. **PROJECT 2:** Investigating the effects of different triglyceride levels on the outcome of COVID-19: Registry analysis.

DALMA KÖVES-DOBSZAI

UNIVERSITY OF PÉCS MEDICAL SCHOOL INSTITUTE FOR TRANSLATIONAL MEDICINE

TOPIC

The effect of obesity on the progression and outcome of acute inflammatory diseases

VISION

Aiding physicians in risk assessment and decision making about obese patients.

MISSION

Comprehensively address all factors related to obesity for deeper understanding the way they interact with each other.

JIMIN LEE

INSTITUTE OF PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY

TOPIC

The association of acute pancreatitis with cancer

VISION

Improve the prognosis of pancreatic cancer.

MISSION

Prevent the progression of pancreatic cancer into its later stages by determining its early predictors.

SPECIFIC GOALS

PROJECT 1: Investigating the Effect of Acute Pancreatitis to the Development of Pancreatic Cancer: Systematic Review and Meta-analysis. **PROJECT 2:** Investigating the Incidence Rate of Malignant Tumors in Patients with Acute Pancreatitis: Registry analysis.

VERONIKA LILLIK

1ST DIVISON OF INTERNAL MEDICINE, FEJÉR COUNTY SZENT GYÖRGY UNIVERSITY TEACHING HOSPITAL

TOPIC Investigating the c

Investigating the cardiac complications associated with acute pancreatitis

VISION

Decrease the mortality of acute pancreatitis (AP) by foregoing the preventable complications.

MISSION

Try to conduct a high-quality research to understand the effect of AP on the cardiac status.

SPECIFIC GOALS

PROJECT 1: Investigating the cardiac complications associated with acute pancreatitis: a systematic review and meta-analysis. **PROJECT 2:** Protocol development for understanding the cardiac status during and after Acute Pancreatitis: Prospective observational clinical research.

SPECIFIC GOALS PROJECT 1: Investigating th

PROJECT 1: Investigating the effect of metabolic syndrome factors on the outcome of acute pancreatitis: Systematic review and Meta-analysis. **PROJECT 2:** Investigating the effects of metabolic syndrome on the outcome of COVID19: Registry analysis.







AGE 23 years **EDUCATION** pharmacist SUPERVISOR(S) Péter Ferdinandy, Renáta Papp E-MAIL ammirmakolli@gmail.com



AGE 23 years EDUCATION medical student SUPERVISOR(S) Péter Hegyi, Stefania Bunduc E-MAIL nemethjazmin222@gmail.com



AGE 47 years **EDUCATION** economist SUPERVISOR(S) Nóra Sydó, Renáta Papp E-MAIL zsuzsanna.benyo@yahoo.com



INSTITUTE OF PHARMACOLOGY AND PHARMACOTHERAPY, SEMMELWEIS UNIVERSITY

TOPIC

New insights on pharmacokinetic and pharmacodynamic changes of drugs in varied gravitational environments

VISION

Enhancing drug effectiveness in space.

MISSION

Conducting innovative research to optimize drug utilization in space travel.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of different gravity levels on pharmacokinetics and pharmacodynamics of drugs: a systematic review and meta-analysis.

PROJECT 2: Investigating the effect of spinal injuries on drug pharmacokinetics and pharmacodynamics in otherwise healthy adults: a systematic review and meta-analysis.

JÁZMIN NÉMETH

STÉG & INSTITUTE FOR PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY

TOPIC

Oncocardiology in digestive system cancer

VISION

The prognosis of patients with pancreatic cancer can be improved by addressing non-cancer-related morbidity.

MISSION

Provide further evidence-based recommendations on the management of cardiovascular comorbidities, which can help improve patients prognosis.

SPECIFIC GOALS

PROJECT 1: Investigating the prevalence of cardiovascular morbidity in pancreatic cancer: systematic review and meta-analysis. **PROJECT 2:** Investigating the prevalence and risk factors of cardiac cachexia in cancer patients: a systematic review and meta-analysis.

ZSUZSANNA PÁSZTORNÉ BENYÓ

SPACEABC KFT.

TOPIC

Human adaptation to spaceflight

VISION

Achieve healthy longevity in space and on Earth.

MISSION

Hungarian TRISH = Translational Research Institute for Space Health

SPECIFIC GOALS

PROJECT 1: Investigating the effectiveness of bisphosphonates in preventing altered gravityrelated bone loss and renal stone formation: a systematic review and meta-analysis. **PROJECT 2:** Investigating the effect of the duration of altered gravity on body composition in astronauts: a systematic review and meta-analysis.



AGE 25 years **EDUCATION** medical doctor SUPERVISOR(S) Péter Hegyi, Brigitta Teutsch, Bogdan Ionel Tamba E-MAIL ioanairinarezus@yahoo.co.uk

IOANA-IRINA REZUS

"SFANTUL SPIRIDON" COUNTY EMERGENCY HOSPITAL

TOPIC

Management of pancreatic cancer: from diagnosis to endstage treatment

VISION

Better management for patients with pancreatic cancer.

MISSION

Assess new diagnostic and treatment methods and implement them into heathcare.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy and safety of therapeutic procedures for chronic pain in unresectable pancreatic cancer: a systematic review and meta-analysis.

PROJECT 2: Investigating the diagnostic accuracy of different imaging techniques in pancreatic cancer staging: a systematic review and metaanalysis.













AGE 25 years EDUCATION medical doctor SUPERVISOR(S) Ákos Szűcs E-MAIL ulmannlorinc@gmail.com DEPARTMENT OF SURGERY, TRANSPLANTATION AND GASTROENTEROLOGY, SEMMELWEIS UNIVERSITY

торіс

New Insights in the Prognosis of Pancreatic Ductal Adenocarcinomas

VISION

Combine research and knowledge in the surgical treatment of pancreatic cancer.

MISSION

Research how different pancreatic tumor mutations lead to different prognoses.

SPECIFIC GOALS

PROJECT 1: Investigating the prognostic relevance of micro-RNA analysis in pancreatic tumors: a systematic review and meta-analysis. **PROJECT 2:** Investigating the Effect of Different Neoadjuvant Therapies on the Prognosis of Borderline Resectable Pancreatic Ductal Adenocarcinomas: A Systematic Review and Metaanalysis.



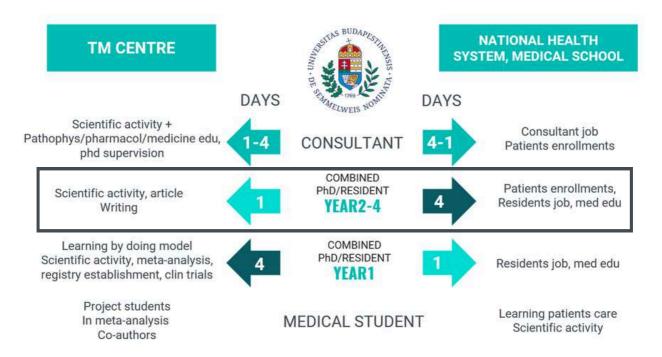
YEAR II.

STARTED IN SEPTEMBER, 2022

2 **YEAR II.** All you need to know about it

In Year II, PhD students will have a minimum of one day per week to continue their research and prepare for the Complex Exam. The 2nd year's aim is to acquire advanced methodological knowledge, finish the projects for the thesis, and for those being an SMS to learn the teaching by doing methodology.

Below you can find a summary of the most important organization questions. On the other hand, more details can be found further in the summary.



DUTIES	RULE
Group meetings	Every second week, compulsory to attend
Progress reports	Twice per year, compulsory to attend
Project meetings	At least once per month
Class meetings	No compulsory class meetings
Lectures	Highly suggested to attend
Social events	Warmly welcomed to attend

GENERAL RULES

- · everyone is expected to submit the first paper until the 5th progress report
- · everyone is expected to present their achievements at the progress report
- everyone is expected to complete the statistical analysis of their project No.2 until the 5th progress report
- the second article has to be finished by the 6th progress report

GROUP MEETING

Year II PhD students will have bi-weekly group meetings. Attendance is mandatory for Accelerator and Excellent students. Individual students are encouraged to participate in the group meetings to follow the group's progress. This year, the ESFs and ESDs, who are highly experienced scientific methodology consultants, will lead group meetings.

The group meetings will aim to present the progress during the last two weeks and a plan for the next meeting. In addition, new projects should be discussed during the meeting.

PROJECTS MEETINGS and METHODOLOGY SUPERVISION

In the second year, we will focus more on the individual work of the project teams. Therefore, we will decrease the number of project meetings to 1-2/month. For methodological help, we also developed a "tutorial" section in Moodle, which is continuously developed.

One meeting per month with the supervisors is mandatory! The number of project meetings may increase in the phase of article writing.



- everyone is expected to submit the first paper until the 5th progress report
- everyone is expected to complete the statistical analysis of their project No 2 until the 5th progress report
- everyone is expected to present the achievements at the progress report.
- The second article has to be finished by the 6th progress report
- Complex exam

STATISTICS

During Year II, project teams will benefit from the same statistical staff. To ease the work of the statisticians, we ask every workgroup to have a timeline for each project. Therefore, time management is even more important this year.

LECTURES

We continuously invite highly recognized scientists in their research fields during the training. In addition, lectures are organized for everyone participating in the TM PhD training.

LEARNING MANAGEMENT SYSTEMS

We are continuously developing our Moodle platform. Students and supervisors should regularly check the platform and follow the announcements. We are also increasing the use of cloud systems. Semmelweis University is continuously introducing the use of Microsoft products that we fully support.

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For communication, we have separate forums for group meetings, project meetings, classes, and a general forum. On the other hand, communication with other colleagues should be done using the chat function.

Website: elearning.tm-centre.org/edu

PROGRESS REPORT V

There will be two progress reports during Year II of the TM PhD training. Attendance is mandatory. The structure of the progress report will be the same as in Year I. Everyone is expected to participate in the 3-month PR of the first year of the 2023/2024 academic year.

Dates: January 23-25, 2024

PROGRESS REPORT VI - COMPLEX EXAM

Between June 17-21, 2024, we will organize the Complex Exam. The exam will have two parts, (1) the first one will be a written test with questions from the e-learnings and courses, (2) the second will be an oral presentation of your two-year work, 10 minutes presentation followed by 10-20 minutes of discussion. Students who already have their complex exam will also have to complete this exam as a progress report.

COURSES AND CREDITS

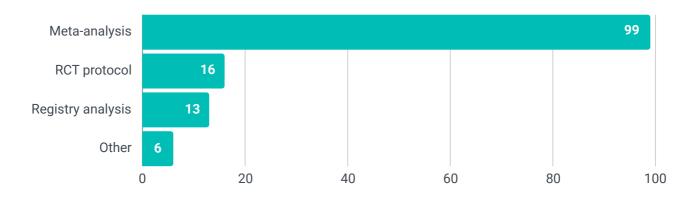
There are no compulsory courses that students have to attend. However, the schedule for Year I is freely available. Year II students should feel free to attend if any of the courses if they lack any methodology knowledge. The courses have to parts, an e-learning is followed by an in-person course which start at 8 am and last 6 hours.

To attend the Complex Exam, PhD students must acquire **16 Credits until the end of the 4th semester**. Every doctoral school accept all our courses.

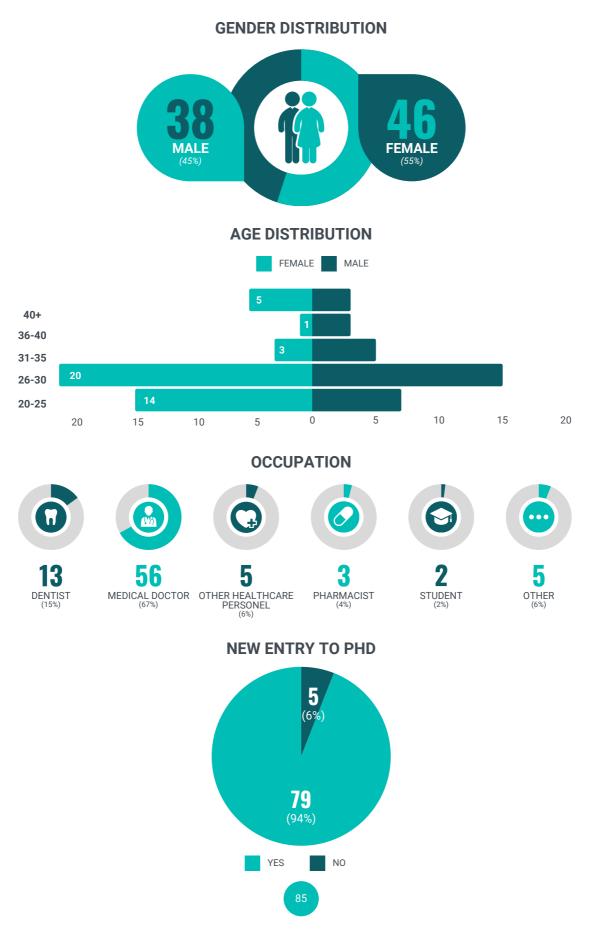
SOCIAL EVENTS

The CTM is open to provide the platform for organizing any socal events. Networking is one of our keywords. Therefore, everyone is welcomed to participate in our social events. During the year, we will have three enjoyable social nights: one during the Halloween period, one in February, and one at the beginning of the summer.

Altogether, there are more than **146 projects** in Year II. Most of them are meta-analyses. However, the number of prospective data collections is continuously increasing.







GROUP 1 MISCELLANEOUS

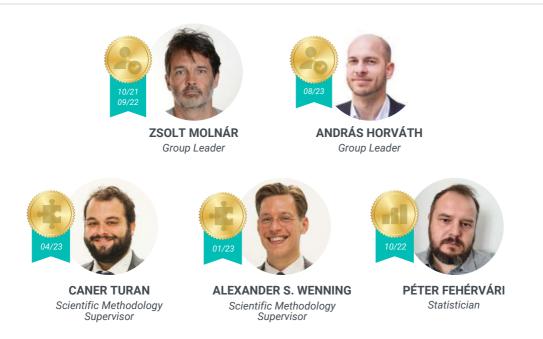


INTRODUCTION TO THE GROUP



The second-year Miscellaneous (Anesthesiology, neuropsychiatry) group is part of the second-third-year Miscellaneous 1 group combining a broad spectrum of topics, including radiology, orthopedics, otolaryngology, neurology, and psychology/psychiatry, alongside cardiology, emergency medicine, and intensive therapy. The resulting blended group consists of 37 students, conducting a total of 81 projects. The students are guided by group leaders Zsolt Molnár, an intensivist, and András Horváth, an expert on neurocognitive disorders, aided by the many excellent supervisors responsible for individual students. The topics investigated range from cholesteatoma, over vital COVID-19 topics, to imaging in orthopedics, traumatology, cardiac disorders, neurology, or even psychiatry. Also, perioperative treatment, interventional cardiology, degenerative neurological disorders, and a range of orthopedic surgeries are being studied. In these very clinical fields, it is no wonder that the students are interested in conducting direct clinical investigations. As such, 27% of the projects chosen are clinical trials, registry analyses, or international surveys. The very productive students of this group have already published 12 of the projects in D1/Q1 journals, and a further 16 projects have been submitted for publication.

MEMBERS OF THE GROUP



STUDENTS: Balázs Dorony, Réka Ehrenberger, György Gulácsi, Dilan Márk Karim, Nikolett Kiss, Klára Borbála Körmendy, Orsolya Lányi, Richárd Masszi, Márton Papp, Danuta Szirmai

SUPERVISORS: Gábor Csukly (Supervisory of the month: August 2022), István Ferenc Édes, András Horváth, Tamás Horváth (Supervisor of the month: September 2022), Annamária Kosztin, Krisztina Madách, Béla Merkely, Zsolt Molnár, Miklós Szendrői, Domonkos Trásy, László Zubek



AGE 26 years EDUCATION medical doctor SUPERVISOR(S) Miklós Szendrői E-MAIL dorony.balazs@gmail.com

BALÁZS DORONY

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS

TOPIC

Orthopedics, traumatology - Hip

VISION

To improve the life quality of people living with endoprostheses through enhancing their range of motion and joint stability.

MISSION

To clarify the indications for different endoprosthesis designs through applying the available scientific data

SPECIFIC GOALS

PROJECT 1: Investigating different hip endoprosthesis designs in revision hip arthroplasties: a systematic review and metaanalysis. Project started: December 2022
PROJECT 2: Investigating patients who underwent revision hip arthroplasty in a Hungarian surgical center: cohort analysis.
Project started: January 2023

PROGRESS LEVEL

Individual



AGE 25 years EDUCATION medical doctor SUPERVISOR(S) István Ferenc Édes E-MAIL reka.ehrenberger@gmail.com

RÉKA EHRENBERGER

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE

TOPIC

Cardiology - Coronary heart disease

VISION

To improve patient care in Hungary and worldwide through evidence-based innovative healthcare solutions

MISSION

To provide forward-looking and novel scientific results in coronary artery and vascular treatment

SPECIFIC GOALS

PROJECT 1: Investigating the effectiveness of treatment modalities for calcified coronary lesions: a systematic review and meta-analysis. Project started: September 2022

PROJECT 2: Comparison of compression and noncompression based hemostasis devices in case of brachial arterial puncture: protocol of a multicentre randomized trial

Project started: November 2022

PROGRESS LEVEL Individual



AGE 37 years EDUCATION medical doctor SUPERVISOR(S) Miklós Szendrői E-MAIL gulacsi.gyorgy@semmelweis.hu

GYÖRGY GULÁCSI

SEMMELWEIS UNIVERSITY, DEP. OF RADIOLOGY

ΤΟΡΙΟ

Radiology - Orthopedics

VISION

To provide state-of-the-art diagnostic care for patients with bone and soft tissue tumors.

MISSION

To determine the optimal imaging algorithm of chondrogenic bone tumors that can eventuate higher clinical decision-making efficacy.

SPECIFIC GOALS

PROJECT 1: Investigating the diagnostic accuracy of advanced MRI techniques in patients with cartilage forming bone tumors.
Systematic review and meta-analysis
Project started: September 2022
PROJECT 2: Comparing the diagnostic accuracy of conventional MRI assessment and radiomical MRI features for the distinction between enchondroma and atypical chondroid tumor.
Retrospective diagnostic test study
Project started: November 2022

PROGRESS LEVEL Individual



AGE 33 years EDUCATION medical doctor SUPERVISOR(S) Krisztina Madách, Zsolt Molnár E-MAIL dilan.karim@gmail.com

DILAN MÁRK KARIM

SEMMELWEIS UNIVERSITY, ANESTHESIOLOGY AND INTENSIVE CARE CLINIC



TOPIC

Intensive care - Microbiom

VISION

Science may overcome quackery.

MISSION

I want to understand better and disseminate the beauty and pitfalls of evidence creation.

SPECIFIC GOALS

PROJECT 1: Investigating the extent of dysbiosis in the critically ill: a systematic review and metaanalysis

Project started: September 2022 **PROJECT 2:** Exploring the depths: Comparing sample-obtaining methods for lower respiratory microbiome testing: a systematic review and metaanalysis Project started: May 2023

PROGRESS LEVEL Individual



AGE 41 years EDUCATION medical doctor SUPERVISOR(S) Zsolt Molnár, László Zubek E-MAIL kiss.nikolett@med. semmelweis-univ.hu



VISION

NIKOLETT KISS

For science to prevail over routine.

MISSION

To implement standardised perioperative protocols in cardiovascular anaesthesia to minimize postoperative complications.

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE

SPECIFIC GOALS

PROJECT 1: Investigating the predictive value of urinary biomarkers in cardiac surgery related acute kidney injury: systematic review and meta-analysis Project started: September 2022 PROJECT 2: Perioperative liraglutide for optimal glucose control in open aortic aneurysm repair Protocol of a randomised clinical trial Project started: November 2022

PROGRESS LEVEL

Accelerator



AGE 26 years EDUCATION medical doctor SUPERVISOR(S) Tamás Horváth E-MAIL borbkoerm@gmail.com



KLÁRA BORBÁLA KÖRMENDY

BAJCSY-ZSILINSZKY HOSPITAL AND CLINIC

TOPIC

Otorhinolaryngology - Middle ear surgery

VISION

Lower cholesteatoma recidivism.

MISSION

Investigating currently used staging systems and follow-up methods.

SPECIFIC GOALS

PROJECT 1: Investigating the validity of the Potsic congenital cholesteatoma staging system: a systematic review and meta-analysis Project started: November 2022 **PROJECT 2:** Assessing the rate of recidivism according to EAONO/JOS* cholesteatoma staging system: a systematic review and meta-analysis Project started: September 2022

PROGRESS LEVEL Accelerator

Accelerator



AGE 26 years **EDUCATION** psychologist SUPERVISOR(S) Gábor Csukly E-MAIL lanyi.orsi@gmail.com



ORSOLYA LÁNYI

SEMMELWEIS UNIVERSITY DEP. OF PSYCHIATRY AND PSYCHOTHERAPY

TOPIC

Neuropsychiatry - Schizophreina

VISION

Understanding the biological background of schizophreniaspectrum disorders.

MISSION

To study the potential neurophysiological and neuroimaging characteristics of schizophrenia.

SPECIFIC GOALS

PROJECT 1: Investigating motor cortical TMS-EMG protocols as new biomarkers for schizophrenia: a systematic review and meta-analysis Project started: September 2022 **PROJECT 2:** Investigating thalamocortical connectivity with resting-state fMRI in schizophrenia: a systematic review and metaanalysis Project started: March 2023

PROGRESS LEVEL Accelerator



AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Annamária Kosztin, Béla Merkely E-MAIL masszi.richard@gmail.com



SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE

TOPIC

Cardiology - Health faulire

VISION

To discover every single detail that can influence the outcome of a disease.

MISSION

Finding more personalised treatment for heart failure patients.

SPECIFIC GOALS

PROJECT 1: Predictive value of scar burden assessed by MRI on sudden cardiac death in cardiac resynchronization therapy patients: a systematic review and meta-analysis Project started: September 2022 PROJECT 2: Effectiveness of non-furosemide drugs with diuretic effect in the management of acute heart failure: a systematic review and metaanalysis Project started: November 2022

PROGRESS LEVEL Accelerator



AGE 36 years **EDUCATION** medical doctor SUPERVISOR(S) Zsolt Molnár, Domonkos Trásy E-MAIL manolo87@gmail.com



MÁRTON PAPP

NEW SZENT JÁNOS HOSPITAL AND CLINIC

Intensive care - Sepsis

VISION

TOPIC

Unnecessary and inappropriate antibiotic therapy will be a bad practice from the past.

MISSION

Protocolize and individualize procalcitonin use in the ICU.

SPECIFIC GOALS

PROJECT 1: Investigating the effects of procalcitonin-guided antibiotic therapy versus standard treatment in ICU patients: a systematic review and meta-analysis of randomized controlled trials

Project started: September 2022

PROJECT 2: Using PCT kinetics to guide antibiotic therapy of ICU patients with suspected new-onset infection: protocol of a multicentre randomized trial

Project started: November 2022

PROGRESS LEVEL Individual





DANUTA SZIRMAI

NATIONAL INSTITUTE OF MENTAL HEALTH, NEUROLOGY AND NEUROSURGERY



TOPIC

Neuropsychiatry - Consciousness

VISION

AGE 30 years EDUCATION medical doctor SUPERVISOR(S) András Horváth E-MAIL danuta.petals@gmail.com



To provide the best care for patients in coma.

MISSION Bring research closer to clinical practice.

SPECIFIC GOALS PROJECT 1: Assessing the prognostic power of

EEG connectivity measures in patients with disorders of consciousness Project started: September 2022 **PROJECT 2:** Assessing the prognostic power of EEG measures in patients with disorders of consciousness Project started: February 2023

PROGRESS LEVEL Accelerator

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GROUP 2 DENTISTRY

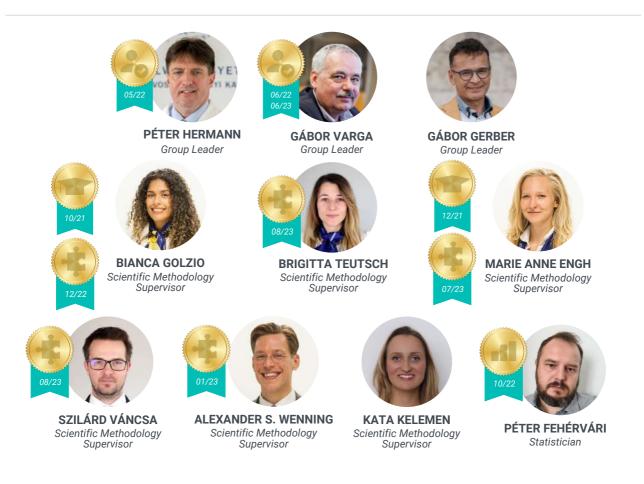


INTRODUCTION TO THE GROUP

11/22 04/23

The second-year dentistry group is part of the Dentistry group, where 22 students and 15 supervisors, work in various fields of medicine. 5 students are in the completed group, 11 students are in the excellence / accelerator group, and 6 students are in the individual group. The group includes disciplines such as prosthodontics, community dentistry, endodontics, maxillofacial surgery, and oral surgery. As all the dental fields are represented in the group, a multidisciplinary approach to the discussion of clinical topics presents a unique opportunity for both PhD students and supervisors. All students are conducting systematic reviews and meta-analyses to improve clinical practice and knowledge. Furthermore, several clinical trials and registries are conducted to prove high-quality evidence in their fields. The SMSs of the team are Bianca Golzio Brigitta Teutsch, Marie Engh, Szilárd Váncsa, Alexander Schulze Wenning, and Kata Kelemen who are coordinating a huge variety of topics. Group leaders are Péter Hermann, Varga Gábor, and Gábor Gerber, acknowledged experts in their field at Semmelweis University.

MEMBERS OF THE GROUP



STUDENTS: Márton Ács, Madalina Banarescu, Bulcsú Bencze, Eszter Hardi, Péter Gergely Komora, Xinyi Qian, Virág Róna, Dalma Tábi, Anna Takács, Orsolya Vámos, Boldizsár Vánkos

SUPERVISORS: Gábor Gerber, Zoltán Géczi, Árpád Joob-Fancsaly, Barbara Kispélyi, Márton Kivovics, Krisztina Ágnes Mikulás (Supervisor of the month: June 2023, September 2023), Orsolya Németh (Supervisor of the month: March 2023), Gábor Varga, János Vág, Dániel Végh



AGE 26 years EDUCATION dentist SUPERVISOR(S) Gábor Varga, Gábor Gerber E-MAIL acsmarton98@gmail.com

MÁRTON ÁCS

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE



TOPIC Dentistry - Facial malformation

VISION

To decrease the incidence of orofacial clefts and improve the patients quality of life.

MISSION

To indicate which maternal risk factors play a role in orofacial clefts incidence through newest scientific data.

SPECIFIC GOALS

PROJECT 1: Investigating the effects of deleterious habits and maternal health disorders on the risk of orofacial cleft development: systematic review and meta-analysis Project started: September 2022 PROJECT 2: Investigating the effects of pharmaceutical therapies during pregnancy on the risk of orofacial cleft development: sysematic review and meta-analysis Project started: November 2022

PROGRESS LEVEL Accelerator



AGE 27 years EDUCATION dentist SUPERVISOR(S) Gábor Gerber E-MAIL banarescu.madalina@gmail.com

MADALINA BANARESCU

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE

TOPIC

Dentistry - Cranio maxillofacial surgery

VISION

To improve the life quality of patients with oromaxillofacial defects.

MISSION

To improve the esthetic and functional outcomes in reconstruction techniques by applying up to date scientific results.

SPECIFIC GOALS

PROJECT 1: Investigating the effectiveness of Intraoperative surgical navigation over conventional surgery in the management of zygomaticomaxillary complex fractures : a systematic review and meta-analysis
Project started: October 2022
PROJECT 2: Investigating the effectiveness of Intraoperative surgical navigation over conventional surgery in the management of orbital reconstruction: a systematic review and metaanalysis
Project started: June 2023

PROGRESS LEVEL Individual



AGE 27 years EDUCATION dentist SUPERVISOR(S) Dániel Végh E-MAIL drbenczebulcsu@gmail.com

BULCSÚ BENCZE

Dentistry - Implantology

maxillofacial defects.

To improve the life quality of patients with oro-

To improve the esthetic and functional outcomes in

reconstruction techniques by applying up to date scientific

TOPIC

VISION

MISSION

results.

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



SPECIFIC GOALS

PROJECT 1: Investigating the effects of different HbA1c levels on the severity of dental implant complications: a systematic review and metaanalysis

PROJECT 2: Investigating the effect of Diabetes Mellitus on the prevalence, risk and mortality of Oral Squamous Cell Carcinoma: a systematic review and meta-analysis

PROGRESS LEVEL Individual



AGE 26 years EDUCATION dentist SUPERVISOR(S) Árpád Joob-Fancsaly E-MAIL hardi.eszter@gmail.com

ESZTER HARDI

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE



TOPIC Dentistry - Oral surgery

VISION To improve the life quality of patients undergoing oral surgeries.

MISSION

To find the best solution that alleviates patients' complaints after third molar removal

SPECIFIC GOALS

PROJECT 1: Investigating the effect of perineural twin mix injection in reducing postoperative complications in lower third molar removal A systematic review and meta-analysis
 Project started: September 2022
 PROJECT 2: Effect of kinesio tape as adjunct therapy in reducing postoperative complications in third molar removal Randomized controlled trial Project started: November 2022

PROGRESS LEVEL Accelerator



AGE 42 years EDUCATION dentist SUPERVISOR(S) János Vág E-MAIL komorapeter@gmail.com

PÉTER GERGELY KOMORA

SEMMELWEIS UNIVERSITY, DEPARTMENT OF RESTORATIVE DENTISTRY AND ENDODONTICS

TOPIC

Dentistry - Conservative dentistry

VISION

Minimal invasive endodontics.

MISSION

Reduce the invasiveness in endodontics through evidencebased science.

SPECIFIC GOALS

PROJECT 1: Comparing the efficacy of bioactive materials in vital pulp therapy: a systematic-review and network meta-analysis Project started: September 2022 PROJECT 2: Comparing the root canal filling quality of calcium silicate-based sealers: a systematic-review and meta-analysis of in-vitro studies

Project started: November 2022

PROGRESS LEVEL Accelerator



AGE 25 years EDUCATION dentist SUPERVISOR(S) Krisztina Ágnes Mikulás E-MAIL qianxinyi98@gmail.com



XINYI QIAN

SEMMELWEIS UNIVERSITY, DEP. OF PROSTHODONTICS



Dentistry - Implantology

VISION

TOPIC

To provide the highest-quality implant-restorations with the most time- and cost-effective workflow, while minimizing patient discomfort based on scientific and clinical evidence.

MISSION

To implement the best implant-prosthodontic treatment for the anterior region into everyday practice.

SPECIFIC GOALS

PROJECT 1: Hard and soft tissue outcomes of different placement and loading protocols on single maxillary implants in the esthetic zone: a systematic review and network meta-analysis Project started: September 2022 **PROJECT 2:** Peri-implant hard and soft tissue

outcomes with anatomic vs non-anatomic healing abutment: a systematic review and meta-analysis Project started: November 2022

PROGRESS LEVEL Accelerator



AGE 29 years EDUCATION dentist SUPERVISOR(S) Zoltán Géczi E-MAIL rona.virag@dent. semmelweis-univ.hu

VIRÁG RÓNA

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



Dentistry - Prosthodontics

TOPIC

VISION

Researching the usage of polymers in dentistry mainly focusing on chitosan.

MISSION

Finding some new alternatives that can be used in clinical dentistry.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: Effect of chitosan on the number of Streptococcus mutans in saliva: meta-analysis and systematic review Project started: September 2022 PROJECT 2: Effect of chitosan on the number of Enterococcus faecalis in root canal: meta-analysis and systematic review Project started: November 2022

PROGRESS LEVEL Individual

PROJECT 1: Róna, V. et al. (2023) Effect of Chitosan on the Number of Streptococcus mutans in Saliva: A Meta-Analysis and Systematic Review Int J Mol Sci, **D1**, **IF:** 5.600

AGE 27 years EDUCATION dentist SUPERVISOR(S) Orsolya Németh E-MAIL tabidalma@gmail.com

dalma tábi

SEMMELWEIS UNIVERSITY, DEPARTMENT OF COMMUNITY DENTISTRY



Dentistry - Orthodontics

VISION

Most of the children with disabilities can attend to a specialized preventive educational program, their oralhygiene indices are the same as their healthy peers and they can receive high-quality treatment if needed.

MISSION

to provide a health care program to patients with special needs -especially children with disability and to develop a method where the children's cooperation and oral literacy can be improved.

SPECIFIC GOALS

PROJECT 1: Assessing the effectiveness of dental prevention programs among children-systematic review and meta-analysis Project started: September 2022 **PROJECT 2:** School-based prevention program for special needs children –Pilot study for an RCT Project started: September 2022

PROGRESS LEVEL

Accelerator



AGE 25 years EDUCATION dentist SUPERVISOR(S) Márton Kivovics E-MAIL takacs.anna535@gmail.com

ANNA TAKÁCS

SEMMELWEIS UNIVERSITY, DEP. OF COMMUNITY DENTISTRY

ΤΟΡΙΟ

Dentistry - Community dentistry

VISION

The application of Augmented Reality based dynamic Computer Assisted Implant Surgery (CAIS) in the everyday clinical practice.

MISSION

Improving patient satisfaction with implants.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: Investigating the accuracy of different implant placement techniques: a systematic review and meta-analysis

Project started: September 2022 **PROJECT 2:** MSc students' learning curve of AR based and conventional dynamic navigation implant placement: protocol of an in vitro study Project started: November 2022

PROGRESS LEVEL Individual

PROJECT 1: Takács, A. et al. (2023) Advancing Accuracy in Guided Implant Placement: A Comprehensive Meta-Analysis: Meta-Analysis evaluation of the accuracy of available implant placement Methods *J Dent*, **D1**, **IF**: 4.400



AGE 29 years EDUCATION dentist SUPERVISOR(S) Barbara Kispélyi E-MAIL vamosorsi13@gmail.com



SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



торіс

Dentistry - Prosthodontics

VISION

to spread awareness of the harmful effect of tobacco products, promote prevention and cessation.

MISSION

ΤΟΡΙΟ

VISION

MISSION

To make comparison on the effects of traditional and alternative tobacco products.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of tobacco products on peri-implant tissues: a systematic review and meta-analysis
Project started: September 2022
PROJECT 2: Impact of smoking status and electronic cigarette use on non-surgical periodontal therapy: a systematic review and meta-analysis
Project started: December 2022

PROGRESS LEVEL Accelerator

AGE 26 years EDUCATION dentist SUPERVISOR(S) Barbara Kispélyi E-MAIL boldizsar.vankos@gmail.com

BOLDIZSÁR VÁNKOS

Dentistry - Implantology

implant prosthodontics.

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS

Modern, simple, accurate and patient-friendly workflow in

To investigate the accuracy and efficacy of novel

technologies in implant prosthodontics.



SPECIFIC GOALS

PROJECT 1: Comparing the accuracy of additive versus conventional cast-fabrication in implant prosthodontics: A systematic review and meta-analysis

Project started: September 2022 **PROJECT 2:** Comparing the accuracy of conventional versus different digital implant impression techniques: A systematic review and meta-analysis Project started: November 2022

PROGRESS LEVEL

Individual

GROUP 3 GYNECOLOGY & UROLOGY





GROUP 3 GYNECOLOGY & UROLOGY

INTRODUCTION TO THE GROUP



The Gynecology and Urology second-year group is part of the 2nd and 3rd-year group, which has 20 supervisors and 26 students, 14 with the status of individual students, 6 accelerators, and 6 completed. The members have a wide range of interests ranging from female genital beautification surgeries, endocrine disorders, biomarkers, and dietary supplementations, premature delivery, female and male infertility, and precision oncology and radiology. The group is planning to complete 60 projects, of which 46 are meta-analyses that resulted in 13 publications, 8 registries, and 4 clinical trial protocols. The two SMSs are Jakub Hoferica and Isabel Amorim. Jakub, a PhD student in gastroenterology, and Isabel, a PhD student in gynecology. The leaders of the group are Professor Nándor Ács and Professor Péter Nyirády, internationally renowned experts in their fields. Professor Ács's main interests are female genital plastic surgeries, laser treatments for the improvement of sexual life, transvaginal surgeries, and perimenopausal changes and treatments. Professor Nyirády's fields of interest are uro-oncology and robotic- and laparoscopic surgeries.

MEMBERS OF THE GROUP



STUDENTS: Júlia Ács, Ádám Csirzó, András Mihály Géczi, András Harajka, Dénes Péter Kovács, András Kubik, István Madár, Isabel Pinto Amorim das Virgens, Benjamin Skribek, Rita Vajna, Gábor Vleskó

SUPERVISORS: Nándor Ács, Ferenc Bánhidy, Pál Ákos Deák, Attila Majoros (Supervisor of the month: December 2022), Levente Sára, Gábor Szabó, Tibor Szarvas (Supervisor of the month: December 2022, May 2023), Sándor Valent, Szabolcs Várbíró



AGE 26 years **EDUCATION** medical doctor SUPERVISOR(S) Attila Majoros E-MAIL acsjulia97@gmail.com



JÚLIA ÁCS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF UROLOGY



TOPIC

Urology - Gynecology

VISION

Reduce the complications of the surgical treatments.

MISSION

Formulate recommendations for surgical treatment in terms of indications, contraindications, patient selection.

SPECIFIC GOALS

PROJECT 1: Investigating the safety and efficacy of female pelvic organ prolapse surgeries with versus without vaginal implants: a systematic review and meta-analysis Project started: September 2022

PROJECT 2: Investigating risk factors associated with complications of female vaginal pelvic organ prolapse surgeries: a systematic review and metaanalysis

Project started: May 2023

PROGRESS LEVEL Individual



AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Sándor Valent E-MAIL adamcsirzo@gmail.com

ÁDÁM CSIR7Ó

past, with one pill a day.

Obstetrics, gynecology - Endometriosis

Endometriosis-related pain should be a concept of the

To find the most effective pain relief therapy for

TOPIC

VISION

MISSION

endometriosis.

SEMMELWEIS UNIVERSITY, DEP. OF OBSTETRICS AND GYNECOLOGY

SPECIFIC GOALS

PROJECT 1: Comparison of robot-assisted versus conventional laparoscopy for the treatment of endometriosis: a systematic review and metaanalysis

Project started: January 2023 **PROJECT 2:** Investigating the most effective medical treatments for endometriosis-related pain: a systematic review and network meta-analysis Project started: September 2022

PROGRESS LEVEL Individual



AGE 30 years **EDUCATION** medical doctor SUPERVISOR(S) Szabolcs Várbíró Levente Sára E-MAIL gandrasmihaly@gmail.com

ANDRÁS MIHÁLY GÉCZI

SEMMELWEIS UNIVERSITY, DEPT. OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Plastic surgery

VISION

To find the best methods, which allow the best functional and aesthetical outcome.

MISSION

To aim for perfection in aesthetic surgery.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of female genital beautification and rejuvenation on patient reported outcomes. A systematic review and meta-analysis Project started: September 2022 PROJECT 2: The impact of aesthetic breast surgery on lactation. A systematic review and meta-analysis Project started: November 2022

PROGRESS LEVEL

Accelerator



AGE 25 years EDUCATION medical student SUPERVISOR(S) Nándor Ács E-MAIL andras.harajka@gmail.com

ANDRÁS HARAJKA

MEDICAL STUDENT



TOPIC

Obstetrics, gynecology - Oncology

VISION

Revealing the effect of oral contraceptive use on cancer risk.

MISSION

Supporting the decision making process of women when choosing contraception method.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of oral contraceptive use on endometrial cancer risk: a systematic review and meta-analysis Project started: January 2022 **PROJECT 2:** Investigating the effect of oral contraceptive use on ovarian cancer risk: a systematic review and meta-analysis Project started: April 2022

PROGRESS LEVEL

Accelerator



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Ferenc Bánhidy E-MAIL kovacsdenespeter@gmail.com

DÉNES PÉTER KOVÁCS

SEMMELWEIS UNIVERSITY, DEPT. OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Infertility

VISION

Emphasize the importance of prevention, help improve reproduction rates.

MISSION

All people should be able to create a healthy family.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of Human Papillomavirus infection on adverse birth outcomes: a systematic review and meta-analysis Project started: September 2022
PROJECT 2: Investigating the association between lipid profile and various pregnancy complications: a systematic review and meta-analysis Project started: May 2023

PROGRESS LEVEL

Individua



AGE 36 years EDUCATION medical doctor SUPERVISOR(S) Tibor Szarvas E-MAIL drkubikandras@gmail.com



ANDRÁS KUBIK

SEMMELWEIS UNIVERSITY

TOPIC

Urology - Surgery

VISION

Empowering patients through excellence in the care they receive.

MISSION

Provide high-quality care for people with urinary bladder cancer.

SPECIFIC GOALS

PROJECT 1: Investigating MMP-7 as a prognostic biomarker in urothelial carcinoma: combined registry and meta-analysis
 Project started: September 2022
 PROJECT 2:
 Comparison of radical and organ-sparing treatment modalities for non-metastatic small cell bladder cancer: systematic review and meta-analysis

Project started: November 2022

PROGRESS LEVEL Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Kubik, A. et al. (2023) Comprehensive Analysis of the Prognostic Value of Circulating MMP-7 Levels in Urothelial Carcinoma: A Combined Cohort Analysis, Systematic Review, and Meta-Analysis *Int J Mol Sci*, **Q1**, **IF:** 6.208



AGE 33 years **EDUCATION** medical doctor SUPERVISOR(S) Nándor Ács. Gábor Szabó E-MAIL madaristvan22@gmail.com

ISTVÁN MADÁR

SEMMELWEIS UNIVERSITY, DEPT. OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Oncology

VISION

I believe that every endometrial cancer patient's life quality and length can be improved using novel methods.

MISSION

To improve the management of endometrial cancer patients by applying up to date scientific results.

SPECIFIC GOALS

PROJECT 1: Transvaginal ultrasound and magnetic resonance imaging in the preoperative stratification of endometrial cancer: a systematic review and meta-analysis Project started: March 2023 PROJECT 2: Systemic therapy for recurrent or advanced endometrial cancer: a systematic review and meta-analysis Project started: January 2023

PROGRESS LEVEL Accelerator



AGE 29 years EDUCATION dietetian SUPERVISOR(S) Nándor Ács E-MAIL isabel.amorim17@gmail.com

ISABEL PINTO AMORIM DAS VIRGENS

SEMMELWEIS UNIVERSITY. CENTRE FOR TRANSLATIONAL MEDICINE

TOPIC

Obstetrics, gynecology - Nutrition

VISION

Pregnancy can have better outcomes through early detection of anemia and implementation of nutritional interventions

MISSION

To raise awareness among pregnant patients regarding the effects of anemia.

PUBLISHED ARTICLE(S)

PROJECT 1: das Virgens, IPA. et al. (2023) Assessment of body composition in adults hospitalized with acute COVID-19: a scoping review Front Nutr, Q1, IF: 5.000



AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Pál Ákos Deák E-MAIL skribekbenjamin@gmail.com

BENJAMIN SKRIBEK

CURRENTLY NOT WORKING

TOPIC

Radiology - Urology

VISION

Our vision is that minimally invasive therapies will be readily available solutions in the treatment of multiple diseases.

MISSION

We would like to simplify the treatment of patients suffering from various diseases, especially tumors. Our aim is to launch novel, humane, effective and safe therapies.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy of minimally invasive interventions versus laparoscopy in the treatment of benign adrenal gland tumors: systematic review and meta-analysis Project started: September 2022 **PROJECT 2:** Investigating the efficacy and safety of minimally invasive interventions in the treatment of low-intermediate risk prostate cancer: systematic review and meta-analysis Project started: November 2022

PROGRESS LEVEL

Individual

PROJECT 1: Investigating the association of irondeficiency anemia on pregnancy outcomes: a systematic review and meta-analysis Project started: September 2022 PROJECT 2: Investigating the association of irondeficiency anemia on congenital anomalies: a systematic review and meta-analysis Project started: September 2022

PROGRESS LEVEL

SPECIFIC GOALS

Accelerator









AGE 33 years **EDUCATION** medical doctor SUPERVISOR(S) Szabolcs Várbíró, Levente Sára E-MAIL

rita.zs.vajna@gmail.com

RITA VAJNA

SEMMELWEIS UNIVERSITY, DEPT. OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Endocrinology

VISION

Finding the best therapy option for higher ovulation rate, endometrial thickness and pregnancy rate in women with PCOS.

MISSION

With the best therapy more women with PCOS can have a child

SPECIFIC GOALS

PROJECT 1: Strong early impact of letrozole on ovulation induction outperforms clomiphene citrate in PCOS women: a systematic review and metaanalysis

Project started: September 2022 PROJECT 2: Investigating the efficacy of herbal remedies on metabolism and on endocrine status in women with PCOS: a systematic review and meta-analysis

Project started: November 2022

PROGRESS LEVEL

Accelerator



AGE 43 years **EDUCATION** medical doctor SUPERVISOR(S) Szabolcs Várbíró E-MAIL vleskogabor@gmail.com

GÁBOR VLESKÓ

SEMMELWEIS UNIVERSITY, DEPT. OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Reproduction medicine

VISION

To expand knowledge on contraception in the world, so that every women can avoid unwanted pregnancy.

MISSION

To find new information that can help a wide population of women to choose the best option for contraception.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy and safety of combined parenteral and oral contraceptives in reproductive aged women. A systematic review and meta-analysis

Project started: September 2022

PROJECT 2: Investigating the role of obesity on hormonal contraceptives. A systematic review and meta-analysis

Project started: November 2022

PROGRESS LEVEL Individual





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GROUP 4 IMMUNOLOGY & COVID

INTRODUCTION TO THE GROUP



The second-year Immunology & COVID-19 group is Miscellaneous II, which has eight students from a broad spectrum of specialty fields, including dermatology, pharmacy, transplantation and surgery, statistics, sociology, and biotechnology. The members of the group have a wide range of interests, from the treatment of melanoma and psoriasis and the use of natural compounds in medicine to the implementation of deep learning models in COVID-19 severity prediction and the utility of rapid molecular assays for the diagnosis of bloodstream infections in emergency medicine. The leaders of the group are Professor Dezső Csupor from the field of pharmacy, Dr. András Bánvölgyi and Dr. Lajos Vince Kemény, both from the field of dermatology.

MEMBERS OF THE GROUP



STUDENTS: Dorottya Bastidas-Gergő, Noémi Ágnes Galajda, Anna Sára Lengyel, Márton Rakovics, Gabriella Anna Rapszky, Andrea Tóth-Mészáros

SUPERVISORS: András Bánvölgyi, Dezső Csupor, Bánk Fenyves, Andrea Harnos (Statistician of the month: September 2022), Péter Holló, Lajos Kemény, Attila Ványolos



AGE 32 years **EDUCATION** biologist SUPERVISOR(S) Dezső Csupor, Attila Ványolos E-MAIL gergo.dorottya@gmail.com





SEMMELWEIS UNIVERISTY, DEP. OF PHARMACY

TOPIC

Pharmacology - Phytomedicine

VISION

The evidence-based use of herbal products will be more widespread in the medical practice.

MISSION

To provide scientific evidence for health professionals to facilitate their work and their evidence-based decision making when applying herbal products.

SPECIFIC GOALS

PROJECT 1: Assessment of efficacy of peppermint on nausea and vomiting: A systematic review and meta-analysis of randomized clinical trials **PROJECT 2:** Elixirium thymi compositum in the treatment of acute bronchitis in pediatric patients: Protocol of a multicentre, randomized, double-blind clinical trial

PROGRESS LEVEL Accelerator



AGE 26 years **EDUCATION** medical doctor SUPERVISOR(S) Péter Holló, András Bánvölgyi F-MAII noemigalajda@gmail.com

NOÉMI ÁGNES GALAJDA

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY AND DERMATOONCOLOGY, SEMMELWEIS UNIVERSITY



TOPIC Dermatology - Psoriasis

VISION

Reducing the burden and mortality caused by comorbidities in patients with immune-mediated inflammatory diseases (IMIDs).

MISSION

TOPIC

VISION

MISSION

Dermatology - Oncology

treatment strategies.

Optimizing the therapeutic sequence considering their effects on comorbidities.

To improve and extend the life of melanoma patients.

To translate basic research to clinical medicine to optimize

SPECIFIC GOALS

PROJECT 1: Investigating the effect of TNFinhibitors on the risk of cardiovascular events in immune-mediated inflammatory diseases Method: systematic review and meta-analysis Project started: October 2022 PROJECT 2: Investigating the effect of TNFinhibitors on the risk of heart failure Method: systematic review and meta-analysis Project started: June 2023

PROGRESS LEVEL

Accelerator



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Lajos Kemény E-MAIL annasara.lengyel@gmail.com



ANNA SÁRA LENGYEL

SEMMELWEIS UNIVERSITY, DEP. OF DERMATOLOGY VENEROLOGY AND DERMATOONCOLOGY

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy and safety of immune-based and targeted therapies and their combinations in the management of advanced/ metastatic melanoma: a systematic review and network meta-analysis

PROJECT 2: Investigating the efficacy and safety of adjuvant therapies in the management of melanoma: a systematic review and network metaanalysis





AGE 37 years EDUCATION socioligist, statistician SUPERVISOR(S) Andrea Harnos E-MAIL rakovicsmarci@gmail.com

MÁRTON RAKOVICS

TOPIC

VISION

MISSION

problems

COVID-19 -Statistics

LORÁND EÖTVÖS UNIVERSITY (ELTE)

Make AI an everyday tool in healthcare.

Develop AI models for disease severity classification



SPECIFIC GOALS

PROJECT 1: Investigating the Efficacy of Early Severity Prediction Models of Covid-19: a systematic review and meta-analysis Project started: September 2022 **PROJECT 2:** Developing a Novel COVID-19 Severity Prediction Deep Learning Model: analysis of the Covid-19 registry data Project started: November 2022

PROGRESS LEVEL Accelerator



AGE 26 years EDUCATION medical doctor SUPERVISOR(S) Bánk Fenyves E-MAIL rapszkygabi@gmail.com

GABRIELLA ANNA RAPSZKY

SEMMELWEIS UNIVERSITY, DEP. OF EMERGENCY MEDICINE

TOPIC

Emergency medicine - Antibiotics

VISION

Improve the management of patients presenting at the emergency department.

MISSION

Contribute to the development of current guidelines.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy of rapid molecular assays in the diagnosis of bloodstream infections: a systematic review and meta-analysis Project started: September 2022 **PROJECT 2:** Investigating the association of ClotPro®-guided therapy with blood product use and mortality in patients with gastrointestinal bleeding: a retrospective study Project started: November 2022

PROGRESS LEVEL

Accelerator



AGE 44 years EDUCATION pharmacist SUPERVISOR(S) Dezső Csupor E-MAIL a.toth.mesz@icloud.com



ANDREA TÓTH-MÉSZÁROS

COGNIZANT HUNGARY

TOPIC

Pharmacology - Phytomedicine

VISION

To make the application of adaptogens part of the evidence-based medicine.

MISSION

To investigate the adaptogens' mechanism of action, their clinical efficacy, their safety profile, optimal dose and optimal length of treatment.

PUBLISHED ARTICLE(S)

PROJECT 1: Tóth-Mé(s) meta-analysis Journal of Functional Foods, Q1, IF: 5.600

SPECIFIC GOALS PROJECT 1: Investigating the effect of adaptogenic plants on stress: a systematic review and meta-analysis

Project started: September, 2022, Paper published: August, 2023

PROJECT 2: Investigating the effect of a single dose Rhodiola rosea extract on cognitive functions in a stressful situation: protocol for a randomized, double-blind, placebo-controlled clinical trial Project started: November, 2022

PROGRESS LEVEL Accelerator

10

GROUP 5 ENDOCRINOLOGY

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INTRODUCTION TO THE GROUP

The Endocrinology Group is a small group of students with diverse backgrounds. The group consists of a biologist, a gynecologist, and an MD-PhD student. Along with the PhD students, there are three Scientific Methodology Learners, and three supervisors working with the team. Main areas of interest include infertility treatment, hormonal and non-hormonal treatment of vulvovaginal atrophy, and diagnostic accuracy of non-invasive prenatal testing. The group leader is Szabolcs Várbíró, who is an expert in the gynecological endocrine field.

MEMBERS OF THE GROUP



SZABOLCS VÁRBÍRÓ Group Leader



JAKUB HOFERICA Scientific Methodology Supervisor



ISABEL P. A. DAS VIRGENS Scientific Methodology Supervisor



BENCE SZABÓ Statistician

STUDENTS: Máté Éliás, Lotti Lúcia Lőczi, Márton Kónya

SUPERVISORS: Anikó Gaál, Márton Keszthelyi, Miklós Sípos, Szabolcs Várbíró



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Szabolcs Várbíró, Miklós Sípos E-MAIL kretschmer47@gmail.com

MÁTÉ ÉLIÁS

SZENT BORBÁLA HOSPITAL, DEP. OF GYNECOLOGY



OLEITI D

TOPIC Obstetrics, gynecology - Endocrinology

VISION

in the future, having a child above 40 years of age won't be a question of luck anymore, but the result of good quality, safe and effective treatment.

MISSION

Improving the treatment of infertility with robust scientific evidence.

SPECIFIC GOALS

PROJECT 1: Investigating the effects of plateletrich plasma (PRP) treatment on fertility for women with diminished ovarian reserve: a systematic review and meta-analysis

The project started: September 2022 **PROJECT 2:** Effect of intraovarian PRP pretreatment on IVF results in diminished ovarian reserve patients: a randomized control trial The project started: November 2022

PROGRESS LEVEL Individual



AGE 50 years EDUCATION biologist SUPERVISOR(S) Annikó Gál E-MAIL konya.marton@czeizelintezet.hu

MÁRTON KÓNYA

PREVENTREND KFT.

TOPIC

Obstetrics, gynecology - Genetics

VISION

Increase the effectiveness of genetic tests.

MISSION

Help pregnant women find a good decision and experts in genetic consultation.

SPECIFIC GOALS

PROJECT 1: Investigating the Accuracy of Non-Invasive Prenatal Testing (NIPT) for Rare
Chromosome Abnormalities: a systematic review and meta-analysis
Project started: September 2022
PROJECT 2: Non-Invasive Prenatal Testing -Background of false positive cases: a systematic review and meta-analysis
Project started: November 2022

PROGRESS LEVEL Accelerator



AGE 25 years EDUCATION medical doctor SUPERVISOR(S) Szabolcs Várbíró, Márton Keszthelyi E-MAIL loczilotti13@gmail.com

LOTTI LÚCIA LŐCZI

SEMMELWEIS UNIVERSITY, FACULTY OF MEDICINE



Obstetrics, gynecology - Endocrinology

VISION

Helping women in various gynecological life situations with the best and most favorable solution.

MISSION

Delivering the most effective therapeutic solutions and scientific knowledge to gynecological patients.

SPECIFIC GOALS

PROJECT 1: Investigating the effectiveness and the safety of the treatments of vulvovaginal atrophy in women with breast cancer treatments: a systematic review and meta-analysis
Project started: November 2022
PROJECT 2: Investigating the effectiveness and safety of IUDs in emergency contraception: a systematic review and meta-analysis
Project started: September 2022

PROGRESS LEVEL Individual



GROUP 6 **PEDIATRICS**

Y

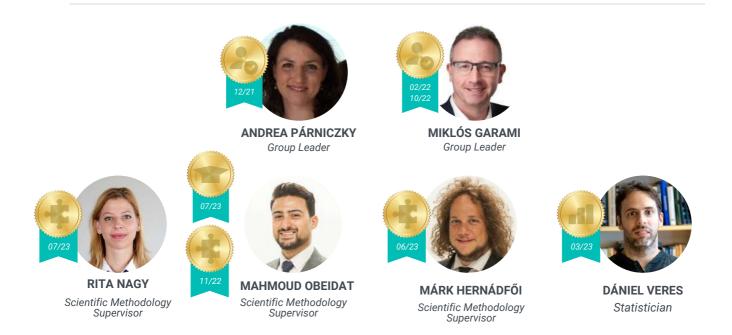


INTRODUCTION TO THE GROUP



The second-year Pediatric group is part of the second-third-year Pediatrics group which is comprised of 22 students, evenly divided between their second and third years, and guided by 13 experienced supervisors. This diverse cohort includes 6 students in the Accelerator group and 16 pursuing their studies as Individual students. The group's research spectrum is vast, spanning pediatric oncology, gastroenterology, infectious diseases, pharmacology, conductive education, neonatology, and even forensic sciences. Collectively, they are engaged in 56 projects, encompassing systematic reviews, clinical trials, and registry analyses. Impressively, five of these projects have been published in top-tier D1/Q1 scientific journals, with numerous others currently undergoing review. The group is particularly active in clinical trial development and evaluation, with 8 projects dedicated to this area, alongside 13 projects focused on international surveys and registry analyses. The group benefits from the expertise of its Scientific Methodology Supervisors (SMSs), Rita Nagy, Mahmoud Obeidat, and Márk Hernádfői, who lend their extensive knowledge to support the diverse range of studies. Leadership is provided by Andrea Párniczky and Miklós Garami, both highly experienced within the Translational Medicine Program and recognized as leading experts in pediatric gastroenterology and oncology, respectively.

MEMBERS OF THE GROUP



STUDENTS: Kinga Anna Budai, Renáta Mária Kiss-Miki, Erika Kolumbán, Janka Kovács, Nicole Li, Gréta Szilvia Major, Zsuzsanna Nagy, Márton Szabados, Ágnes Eszter Tímár, Vivien Unger, Petra Varga

SUPERVISORS: Péter Gaál, Miklós Garami, Ákos Gasparics (Supervisor of the mont: March 2023), Balázs Hankó, Csaba Lódi, Katalin Müller (Supervisor of the month: February 2023), Miklós Szabó (Supervisor of the month: July 2023), Ibolya Túri



AGE 31 years EDUCATION pharmacist SUPERVISOR(S)

Csaba Lódi, Balázs Hankó E-MAIL budai.kinga@pharma. semmelweis-univ.hu





AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Miklós Garami E-MAIL drkissmikirenata@gmail.com

KINGA ANNA BUDAI

SEMMELWEIS UNIVERSITY, UNIVERSITY PHARMACY, INSTITUTE OF PHARMACEUTICAL ORGANISATION



TOPIC

Pediatrics - Infectology

VISION

To improve the effectiveness of antimicrobial therapy and extend the life expectancy of critically ill children.

MISSION

To improve the antibiotic dosing based on serum drug levels and up to date scientific results among critically ill children.

SPECIFIC GOALS

PROJECT 1: Investigating the Efficacy and Safety of Extended Versus Short-term Infusion of β -lactams in Paediatric Patients: A Systematic Review and Meta-analysis Project started: September 2022 **PROJECT 2:** Comparison of Efficacy and Plasma Concentrations of Extended and Intermittent Infusion of B-lactams in Critically ill Paediatric Patients Protocol of Randomized Clinical Trial Project started: May 2023

PROGRESS LEVEL Individual

RENÁTA MÁRIA KISS-MIKI

ZALA COUNTY SZENT RAFAEL HOSPITAL

TOPIC

Pediatrics - Brain tumor oncotherapy

VISION

To give a better life with less side effects for pediatric brain tumor survivors.

MISSION

To help pediatric brain cancer patients and researchers to improve quality of life.

SPECIFIC GOALS

PROJECT 1: Proton or Photon? Comparison of Survival and Toxicity Among Pediatric Brain Cancer Patients: A Systematic Review and Meta-analysis Project started: September 2022 **PROJECT 2:** Adaptation of Cerebellar Affective Cognitive/Schmahmann Syndrome Scale and Cerebellar Mutism Scale in Hungarian for Children: Questionnaire Adaptation Project starts: September 2023

PROGRESS LEVEL Individual



AGE 47 years EDUCATION dentist SUPERVISOR(S) Péter Gaál, Ibolya Turi E-MAIL kolumbanerika@gmail.com

ERIKA KOLUMBÁN

SEMMELWEIS UNIVERSITY, ANDRÁS PETŐ FACULTY

TOPIC

Pediatrics - Conductive education

VISION

To improve the life quality of cerebral palsy patients through better rehabilitation and to contribute to world recognition of conductive education.

MISSION

To improve the condition of cerebral palsy patients by applying evidence-based breathing exercises in their rehabilitation care.

SPECIFIC GOALS

PROJECT 1: Supplementary respiratory therapy improves pulmonary functions in paediatric patients with cerebral palsy:a systematic review and meta-analysis
 Project started: September 2022
 PROJECT 2: Effects of conductive breathing exercises on pulmonary functions of school-aged children with cerebral palsy: study protocol of a randomized control trial
 Project started: October 2022

PROGRESS LEVEL

Accelerator



AGE 29 years **EDUCATION** medical doctor SUPERVISOR(S) Miklós Garami E-MAIL janka.kovacs1121@gmail.com

JANKA KOVÁCS

SEMMELWEIS UNIVERSITY, FACULTY OF MEDICINE, 2ND DEPARTMENT OF PEDIATRICS



TOPIC

Pediatrics - Brain tumor oncotherapy

VISION

improve the life quality and extend the life expectancy of children treated with brain cancer.

MISSION

To provide guidelines for the treatment of diseases involving the CNS (malignancies, hydrocephalus).

SPECIFIC GOALS

PROJECT 1: Shifting Paradigms: Antibiotic-Impregnated Ventriculoperitoneal-Shunts for Infection Prevention: A Systematic Review and Meta-analysis

Project started: September 2022 PROJECT 2: Shifting Paradigms: Antibiotic-Impregnated Ventriculoperitoneal-Shunts for Infection Prevention: A Systematic Review and Meta-analysis Project started: September 2022

PROGRESS LEVEL Individual



AGE 21 years EDUCATION medical doctor SUPERVISOR(S) Miklós Garami E-MAIL liximeng0123@gmail.com

NICOLE LI

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE



TOPIC

Pediatrics - Acute pancreatitis

VISION

Improve the quality of life of pediatric oncology patients during and after treatment..

MISSION

Confirm the efficacy of TCM and promote the use of TCM complementary therapies.

SPECIFIC GOALS

PROJECT 1: Investigating the Addition of Complementary Chinese Herbal Medicine Among Pediatric Oncology Patients Treated with Conventional Therapies: A Systematic Review and Meta-Analysis Project started: January 2023 **PROJECT 2:** Safety and Efficacy of Turmeric (Curcuma longa) Extract and Curcumin Supplements in Malignant Oncology Disorders: A Systematic Review and Meta-Analysis. Project started: August 2023

PROGRESS LEVEL Accelerator



AGE 26 years EDUCATION medical doctor SUPERVISOR(S) Ákos Gasparics E-MAIL major.greta9@gmail.com

GRÉTA SZILVIA MAIOR

HEIM PÁL NATIONAL PEDIATRIC INSITUTE

TOPIC

Pediatrics - Placental and umbilical cord pathologies

VISION

To improve the quality of life and extend the life expectancy of newborns via better early management.

MISSION

To optimize the time of cord clamping and dosage of caffeine among preterms.

SPECIFIC GOALS

PROJECT 1: Investigating the Outcomes of Neonatal Resuscitation With and Without Intact Cord: a Systematic Review and Meta-Analysis Project started: September 2022 **PROJECT 2:** Comparing the Effects of Different Dosages of Caffeine on Neonatal Mortality and Morbidity: a Systematic Review and Meta-Analysis Project started: September 2023

PROGRESS LEVEL

Accelerator



AGE 43 years EDUCATION medical doctor SUPERVISOR(S) Miklós Szabó E-MAIL zsuzsanagydr@gmail.com

ZSUZSANNA NAGY

SEMMELWEIS UNIVERSITY, DEPT. OF OBSTETRICS AND GYNECOLOGY

TOPIC

Pediatrics - IVH

VISION

Implement new effective and safe neuroprotective methods at national and international level.

MISSION

To study and validate neuroprotective delivery room stabilization methods in preterm infants.

SPECIFIC GOALS

PROJECT 1: Investigating the Onset of Intraventricular Haemorrhage in Preterm Neonates: A Systematic Review and Meta-analysis
Project started: September 2022
PROJECT 2: Onset of Intraventricular
Haemorrhage in Preterm Infants: Prospective
Observational Trial
Project started: November 2022

PROGRESS LEVEL Individual



27 years EDUCATION medical doctor SUPERVISOR(S) Miklós Garami E-MAIL marton.szabados965@ gmail.com

MÁRTON SZABADOS

SEMMELWEIS UNIVERSITY, FACULTY OF MEDICINE, 2ND DEPARTMENT OF PEDIATRICS

TOPIC

Pediatrics - Oncology and hematology

VISION

Childhood cancer patients and survivors will live a rich and full life.

MISSION

To establish a well designed follow-up system, focusing on quality of life of and psychological well-being of these patients.

SPECIFIC GOALS

PROJECT 1: Impact of the Tumor Location on Developing Affective Disorders among Childhood Brain Cancer Survivors: A Systematic Review and Meta-analysis

Project started: September 2022

PROJECT 2: The Hungarian Linguistic and Cultural Adaptation of The Minneapolis-Manchester Quality of Life Instrument (MMQL) – Adolescent form Project started: November 2022

PROGRESS LEVEL Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Szabados, M. et al. (2023) Association of tumor location with anxiety and depression in childhood brain cancer survivors: a systematic review and meta-analysis *Child Adolesc Psychiatry Ment Health*, **D1**, **IF:** 5.600



AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Katalin Müller E-MAIL timar.agnes95@gmail.com

ÁGNES ESZTER TÍMÁR

HEIM PÁL NATIONAL PEDIATRIC INSITUTE

TOPIC

Pediatrics - IBD

VISION

Improve the quality of life of IBD patients through proper treatment.

MISSION

Assess long-term disease outcomes and treatment options of IBD patients with extraintestinal manifestations.

SPECIFIC GOALS

PROJECT 1: Beyond the Gut: A Systematic Review and Meta-analysis of Advanced Therapies for Inflammatory Bowel Disease-associated Extraintestinal Manifestations
Project started: September 2022
PROJECT 2: Investigating the Association between Extraintestinal Manifestations and the Intestinal Disease Course in Children with Inflammatory Bowel Disease: registry analysis
Project started: October 2022

PROGRESS LEVEL Individual





AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Ákos Gasparics, Péter Varga E-MAIL ungervivien@gmail.com

VIVIEN UNGER

CSOLNOKY FERENC HOSPITAL

TOPIC

Pediatrics - Placental and umbilical cord pathologies

VISION

To provide the highest quality of care to the very preterm infants, the most fragile neonates.

MISSION

To find the optimal mode of delivery for very preterm neonates and to provide timely and accurate data about periviable preterms in Hungary.

SPECIFIC GOALS

PROJECT 1: Investigating the relation between the mode of delivery on the mortality and morbidity among extremely and very preterm infants: a systematic review and meta-analysis Project started: September 2022 **PROJECT 2:** Characteristics and outcomes of periviable infants in Hungary: a registry analysis Project started: October 2022

PROGRESS LEVEL

Accelerator



AGE 25 years EDUCATION medical doctor SUPERVISOR(S) Eszter Tuboly, Andrea Párniczky E-MAIL vpetra9998@gmail.com

PETRA VARGA

HEIM PÁL NATIONAL PEDIATRIC INSITUTE

TOPIC

Pediatrics - Oncology and hematology

VISION

Modernize clinical care and research support in pediatric oncology.

MISSION

Bringing in future-proof, global approaches in risk stratification of childhood cancer.

SPECIFIC GOALS

PROJECT 1: Comparing The Prognostic Accuracy of Prediction Models Used in Childhood Cancer: A Systematic Review and Meta-analysis
Project started: September 2022
PROJECT 2: Building a Prognostic Model Using Machine Learning for Childhood Cancer:
Retrospective Cohort Study - Registry Analysis
Project started: January 2023

PROGRESS LEVEL

Individual



GROUP 7 GASTROENTEROLOGY

2

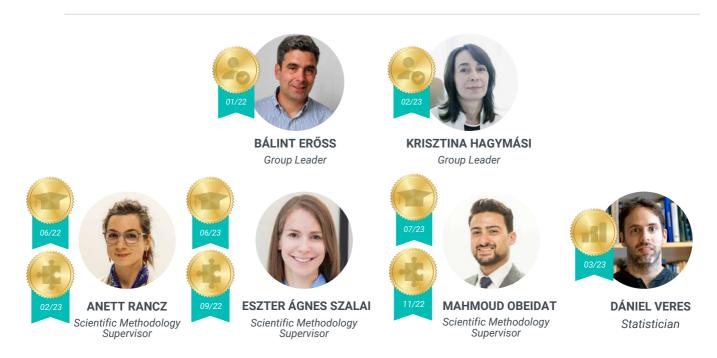
GROUP 7 GASTROENTEROLOGY

INTRODUCTION TO THE GROUP



The second-year Gastroenterology is part of the second-third-year Gastroenterology, which group consists of 24 Ph.D. students, three specialists, 11 resident doctors, five full-time PhD researchers, three dieticians, one psychologist, and one biologist. They research various topics in the field of gastroenterology, tackling gastroesophageal reflux, acute and chronic pancreatitis, pancreatic cancer, diabetes mellitus, gastrointestinal bleeding and – endoscopy, chronic liver diseases, Clostridium difficile infection, gut microbiota, inflammatory bowel diseases, microscopic colitis, and colorectal cancer; having a special focus on psychological, radiological, and surgical aspects of these diseases as well. Among them one student has a completed status, one has excellence, 13 of them are accelerators, and nine students are grouped as individuals. The work of this diverse group is led and facilitated by Bálint Erőss and Krisztina Hagymási, experts in the field of gastroenterology, with the aid and joint work of many great other supervisors, and the help of the scientific methodology supervisors of Anett Rancz, Eszter Szalai and Mahmoud Obeidat.

MEMBERS OF THE GROUP



STUDENTS: Dániel Bednárik, Ruben Zsolt Borbély, Bettina Budai, Endre-Botond Gagyi, Cai Gefu, Bálint Gellért, Jacub Hoferica, Diana-Elena Iov, Sarolta Beáta Kávási, Mónika Bernadett Lipp, Petrana Martinekova, Panagiotis Paraskevopoulos, Hajnal Székely, Edina Tari, Dorottya Tarján, Laura Tóth

SUPERVISORS: Szabolcs Ábrahám, Péter Banovnic, Stefania Bunduc, Bálint Erőss, Nándor Faluhelyi, László Földvári, Katalin Földváriné Lenti (Supervisor of the month: August 2023), Krisztina Hagymási, Péter Hegyi, Péter Jenő Hegyi (Supervisor of the month: April 2023), István Hritz, Vasile Liviu, Pál Miheller, Alexandra Mikó



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) László Földvári, Katalin Földváriné Lenti E-MAIL daniel.bednarik@yahoo.com

DÁNIEL BEDNÁRIK

HEIM PÁL CHILDREN'S HOSPITAL



TOPIC

Gastroenterology - C.Diff

VISION

Every patient should have the chance to get the best possible therapies in healthcare against Clostridioides difficile infection.

MISSION

Find the best possible therapies in healthcare against Clostridioides difficile infection.

SPECIFIC GOALS

PROJECT 1: Comparing the effectiveness and safety of different therapies in Clostridioides difficile infection in adults
Project started: September 2022
PROJECT 2: Comparing the effectiveness and safety of different therapies in Clostridioides difficile infection in pediatric patients
Project started: November 2022

PROGRESS LEVEL

Accelerator



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Nándor Faluhelyi, Péter Hegyi E-MAIL drborbelyruben@gmail.com

RUBEN ZSOLT BORBÉLY

BAJCSY-ZSILINSZKY HOSPITAL AND CLINIC

TOPIC

Gastroenterology - Radiology

VISION

Advance the understanding and treatment of acute pancreatitis.

MISSION

Enhance the diagnostic and prognostic value of CT imaging in acute pancreatitis.

SPECIFIC GOALS

PROJECT 1: Growing Risk of Splanchnic Vein Thrombosis in the Early Phase of Acute
Pancreatitis: a systematic review and metaanalysis
Project started: September 2022
PROJECT 2: Investigating the effect of CT calculated body composition on the outcomes of patients with acute pancreatitis: a retrospective analysis of a clinical trial
Project started: November 2022

PROGRESS LEVEL Accelerator



AGE 27 years EDUCATION dietetian SUPERVISOR(S) Péter Hegyi, Stefania Bunduc E-MAIL budai.betti4@gmail.com



BETTINA BUDAI

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE, CENTRE OF PANCREATIC DISEASES



ΤΟΡΙΟ

Gastroenterology - Acute pancreatitis

VISION

Nutrition is a corner stone in the multimodal care of all cancer patients.

MISSION

To carry out scientific activity to bring innovation in the nutrition therapy of cancer.

SPECIFIC GOALS

PROJECT 1: Investigating the risk factors for malnutrition in patients with gastrointestinal cancer: a systematic review and meta-analysis
Project started: September 2022
PROJECT 2: Investigating the effect of amino acid supplementation in digestive tract cancer patients: a systematic review and meta-analysis
Project started: November 2022



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Bálint Erőss E-MAIL endre.gg@gmail.com

ENDRE-BOTOND GAGYI

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE



TOPIC

Gastroenterology - Pancreatitis

VISION

Gaining professional knowledge about the progression of pancreatitis, to identify more patients with early chronic pancreatitis.

MISSION

To highlight and emphasize the importance and to make better recommendations to patients by understanding the progression of acute pancreatitis into RAP and CP.

SPECIFIC GOALS

PROJECT 1: The Risk Factors of Acute Pancreatitis Progression into Recurrent Acute Pancreatitis and Chronic Pancreatitis:

A Systematic Review and Meta-analysis Project started: September 2022 **PROJECT 2:** The Proportion of Chronic Pancreatitis patients without any prior acute pancreatitis episode and the associated factors: A Systematic Review and Meta-analysis Project started: October 2022

PROGRESS LEVEL Accelerator



AGE 26 years EDUCATION biologist SUPERVISOR(S) Péter Hegyi E-MAIL lajirenbushao@gmail.com

CAI GEFU

CENTRE FOR TRANSLATIONAL MEDCINE

TOPIC Castroor

Gastroenterology - Acute pancreatitis

VISION

Improving the prognosis of acute pancreatitis patients: Less common etiologies.

MISSION

Explore the effects of virus infection in GI system.

SPECIFIC GOALS

PROJECT 1: Investigating the effects of concomitant virus infections on clinical outcomes in acute pancreatitis: a systematic review and meta-analysis Project started: February 2023 PROJECT 2: Identifying the association between serum lipids and their metabolites and the outcome of COVID-19 : a systematic review and meta-analysis Project started: March 2023

Froject started. March 20

PROGRESS LEVEL Accelerator



AGE 34 years EDUCATION medical doctor SUPERVISOR(S) István Hritz E-MAIL gellert.balint89@gmail.com

BÁLINT GELLÉRT

SEMMELWEIS UNIVERSITY, DEP. OF SURGERY, TRANSPLANTATION AND GASTROENTEROLOGY



TOPIC

Gastroenterology - Pancreaticobiliary

VISION

Reducing mortality and morbidity related to pancreaticobiliary diseases.

MISSION

Enhancement of the safety and efficacy of different endoscopic interventions used in the management of pancreaticobiliary disorders.

SPECIFIC GOALS

PROJECT 1: Understanding the role of different endoscopic retrograde cholangiopancreatography (ERCP) techniques following the Roux-en-Y gastric bypass (RYGB) procedure – systematic review and meta-analysis

The project started: September 2022 **PROJECT 2:** Improving the endoscopic management of walled-off pancreatic necroses by comparing two treatment strategies – clinical trial The project started: December 2022



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Péter Jenő Hegyi, Peter Banovnic

E-MAIL hoferica.jakub@gmail.com





AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Bálint Erőss, Vasile Liviu E-MAIL iovdiana95@gmail.com



JAKUB HOFERICA

TOPIC

VISION

MISSION

UNIVERSITY HOSPITAL MARTIN

Gastroenterology - Hepatology



SPECIFIC GOALS

PROJECT 1: Investigation of chronic liver disease effect on outcomes in acute pancreatitis: Systematic review and meta-analysis Project started: September 2022 PROJECT 2: Investigating the application of fecal microbiota transplantation in alcoholic hepatitis: Systematic review and meta-analysis Project started: August 2023

PROGRESS LEVEL Individual

DIANA-ELENA IOV

SAINT SPIRIDON EMERGENCY HOSPITAL IASI, ROMANIA

To promote evidence-based medicine in gastroenterology.

To better understand risk factors in gastroenterology.



Gastroenterology - GERD-PPI

VISION

To improve the clinical management of patients with Gastro-Esophageal Reflux Disease (GERD).

MISSION

to assess the efficacy and safety of acid-suppressive drugs.

SPECIFIC GOALS

PROJECT 1: Therapeutic Effects of Acid-Suppressive Medications in Adults with Nonspecific Chronic Cough: Systematic Review and Meta-analysis

Project started: September 2022 **PROJECT 2:** Risk of Clostridioides difficile Infection in Adults with Treatment with Proton Pump Inhibitors: Systematic Review and Metaanalysis Project started: March 2022

Project started: March 2023

PROGRESS LEVEL Individual



AGE 30 years EDUCATION medical doctor SUPERVISOR(S) Szabolcs Ábrahám, Péter Hegyi E-MAIL kavasisarolta@yahoo.com

SAROLTA BEÁTA KÁVÁSI

TOLDY FERENC HOSPITAL AND CLINIC

TOPIC

Gastroenterology - Surgery

VISION

Improve the immediate postoperative and quality of life of patients following colorectal cancer surgery.

MISSION

Bring the latest scientifical data to clinical use in the surgical field.

SPECIFIC GOALS

PROJECT 1: End-to-end anastomosis provides similar quality-of-life, compared with other reconstructive techniques six months following Total Mesorectal Excision: systematic review and meta-analysis of randomized controlled trials
 Project started: September 2022
 PROJECT 2: Comparing surgical and oncological outcomes of extra-levator to conventional abdominoperineal excision for low rectal cancer: systematic review and meta-analysis
 Project started: February 2023





AGE 30 years EDUCATION medical doctor SUPERVISOR(S) Péter Hegyi, Alexandra Mikó E-MAIL lipp.monika@gmail.com

MÓNIKA BERNADETT LIPP

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE, CENTRE OF PANCREATIC DISEASES



Gastroenterology - Pancreatology

VISION

Take action on quality of care.

MISSION

To improve the clinical assessment of patients with pancreatic disorders and metabolic abnormalities.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of the fatty pancreas on the risk of pancreatic cancer: a systematic review and meta-analysis Project started: September 2022 **PROJECT 2:** Understanding the role of metabolic changes in disease progression on GOULASH-trial patients following acute pancreatitis: register analysis

Project started: November 2022

PROGRESS LEVEL Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Lipp, MB. et al. (2023) Fatty Pancreas Is a Risk Factor for Pancreatic Cancer: A Systematic Review and Meta-Analysis of 2956 Patients *Cancers (Basel)*, **Q1**, **IF**: 5.200



AGE 30 years EDUCATION medical doctor SUPERVISOR(S) Krisztina Hagymási E-MAIL petrana.martinek@gmail.com



PETRANA MARTINEKOVA

CANDENA SLOVAKIA

TOPIC

Gastroenterology - Hepatology

VISION

Improve the care for patients with liver diseases with evidence-based and personalized approach.

MISSION

Investigate the current evidence of micro and macronutrients in chronic liver diseases and the early detection of bacterial infections in cirrhotic patients.

SPECIFIC GOALS

PROJECT 1: Comprehensive Analysis of Vitamin-D Supplementation in Patients with Chronic Liver
Disease: a Systematic Review and Meta-analysis of Randomized Controlled Trials
Project started: September 2022
PROJECT 2: Diagnostic Accuracy of Biomarkers in Cirrhotic Patients with Bacterial Infections: a Systematic Review and Meta-analysis
Project started: November 2022

PROGRESS LEVEL

Accelerator



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Bálint Erőss E-MAIL panag.parask@gmail.com

PANAGIOTIS PARASKEVOPOULOS

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE

TOPIC

Gastroenterology - Pancreaticobiliary

VISION

Improve palliation of critically ill patients.

MISSION

Find a proper idea and implement it properly.

SPECIFIC GOALS

 PROJECT 1: The Addition of Antegrade Stenting in Patients Undergoing Hepaticogastrostomy for Malignant Biliary Obstruction Offers Better
 Outcomes: A Systematic Review & Meta-Analysis: a systematic review and meta-analysis
 Project started: November 2022
 PROJECT 2: Efficacy of different EUS-guided biliary drainage techniques





AGE 48 years EDUCATION medical doctor SUPERVISOR(S) Pál Miheller E-MAIL szhajni75@yahoo.com

HAJNAL SZÉKELY

SEMMELWEIS UNIVERSITY, DEP. OF SURGERY, TRANSPLANTATION AND GASTROENTEROLOGY



TOPIC

Gastroenterology - IBD

VISION To improve the quality of IBD patient's care.

MISSION

Extend the knowledge regarding important clinical aspects of this complex systemic disease.

SPECIFIC GOALS

PROJECT 1: Anti-tumor necrosis factor-alpha has lower rates of venous thromboembolism than conventional therapy in Inflammatory Bowel Diseases - Systematic review and meta-analyis Project started: September 2022 PROJECT 2: Comparing tumor necrosis factoralpha inhibitors with anti-inflammatory IBD therapy on colitis associated colorectal cancer -Systematic review and meta-analysis Project started: December 2022

PROGRESS LEVEL Accelerator



AGE 26 years EDUCATION medical doctor SUPERVISOR(S) Bálint Erőss E-MAIL edina.tari@gmail.com

EDINA TARI

SEMMELWEIS UNIVERSITY, INSTITUTE OF PANCREATIC DISEASES

TOPIC

Gastroenterology - Pancreaticobiliary

VISION

To improve patient care in acute gastrointestinal diseases.

MISSION

To conduct high-quality researches in acute gastrointestinal diseases.

SPECIFIC GOALS

PROJECT 1: Morphology of the papilla can predict a higher rate of post-ERCP adverse events: systematic review and meta-analysis
Project started: September 2022
PROJECT 2: Early resuscitation with vasopressor and fluid versus fluid resuscitation alone in hemodynamically unstable patients with acute gastrointestinal bleeding: protocol for a multicentre randomized controlled trial; feasibility trial
Project started: December 2021

PROGRESS LEVEL Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Tari, E. et al. (2022) Anaemia Is Associated with an Increased Risk of Fractures, a Systematic Review, and Meta-Analysis

Gerontology, Q1, IF: 3.500

PROJECT 2: Tari, E. et al. (2023) At admission hemodynamic instability is associated with increased mortality and rebleeding rate in acute gastrointestinal bleeding: a systematic review and meta-analysis *Therap Adv Gastroenterol*, **Q1**, **IF:** 4.200



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Péter Hegyi, Alexandra Mikó E-MAIL dori.tarjan@gmail.com

DOROTTYA TARJÁN

SEMMELWEIS UNIVERSITY, INSTITUTE OF PANCREATIC DISEASES

торіс

Gastroenterology - Pancreatology

VISION

To contribute to clearer guidelines.

MISSION

To improve the management of acute pancreatitis.

SPECIFIC GOALS

PROJECT 1: Identifying early predictors for infected necrosis in acute pancreatitis : a systematic review and meta-analysis Project started: September 2022 **PROJECT 2:** Investigating the safety and effectiveness of cholecystectomy in pregnant women with acute pancreatitis: registry-analysis Project started: November 2022

PROGRESS LEVEL

Accelerator

PUBLISHED ARTICLE(S)

PROJECT 1: Tarján, D. et al. (2022) Acute Pancreatitis Severity Prediction: It Is Time to Use Artificial Intelligence J Clin Med, Q1, IF: 3.900





AGE 27 years EDUCATION emedical doctor SUPERVISOR(S) Pál Miheller E-MAIL laura.toth.0504@gmail.com

LAURA TÓTH

SEMMELWEIS UNIVERSITY, INSTITUTE OF PANCREATIC DISEASES

торіс

Gastroenterology - Surgery - IBD

VISION

Provide the best achievable therapy to IBD patients.

MISSION

Contribute to the clarification of some questionable parts in the surgical care of IBD patients.

SPECIFIC GOALS

PROJECT 1: Comprehensive analyse of the effect of obesity on postoperative complications in UC: Systematic review and meta-analysis
 Project started: September 2022
 PROJECT 2: Comparison of the hand-sewn anastomosis with stapled in UC patients undergoing colectomy:
 Systematic review and meta-analysis
 Project started: November 2022

PROGRESS LEVEL

Accelerator



YEAR III.

STARTED IN SEPTEMBER, 2021

YEAR III. All you need to know about it

Besides the Year II description, Year III and IV students should follow the below description.

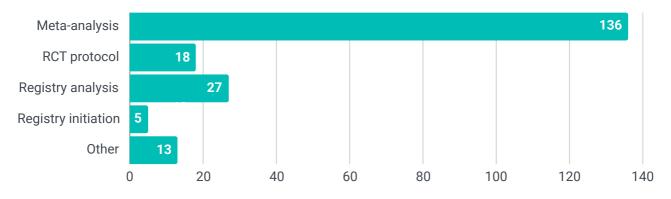
Years III and IV are the second phases of the PhD training. Those who successfully completed the Progress Report VI (Complex Exam) can continue the TM PhD training. Based on the minimum requirement of the previous Progress Reports, all students must have at least a submitted manuscript. However, for most of the students, the second project should also be in an advanced phase.

Students are divided into different progress groups. Those in the Graduate group can start writing their thesis. Those in the Completed group can either start working on further projects or start writing their thesis until both papers are officially accepted.

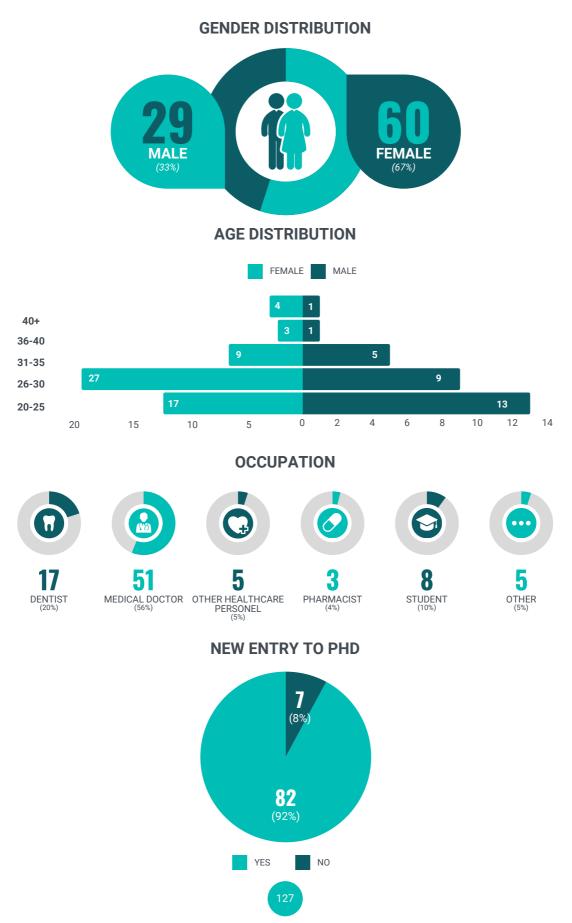
The thesis defense has two phases, according to the following figure.



Altogether, there are more than **211 projects** in Year II. Most of them are meta-analyses. However, the number of prospective data collections is continuously increasing.







GROUP 1 MISCELLANEOUS



INTRODUCTION TO THE GROUP



The third-year Miscellaneous group is part of the second-third-year Miscellaneous 1 group combining a broad spectrum of topics, including radiology, orthopedics, otolaryngology, neurology, and psychology/psychiatry, alongside cardiology, emergency medicine, and intensive therapy. The resulting blended group consists of 37 students, conducting a total of 81 projects. The students are guided by group leaders Zsolt Molnár, an intensivist, and András Horváth, an expert on neurocognitive disorders, aided by the many excellent supervisors responsible for individual students. The topics investigated range from cholesteatoma, over vital COVID-19 topics, to imaging in orthopedics, traumatology, cardiac disorders, neurology, or even psychiatry. Also, perioperative treatment, interventional cardiology, degenerative neurological disorders, and a range of orthopedic surgeries are being studied. In these very clinical fields, it is no wonder that the students are interested in conducting direct clinical investigations. As such, 27% of the projects chosen are clinical trials, registry analyses, or international surveys. The very productive students of this group have already published 12 of the projects in D1/Q1 journals, and a further 16 projects have been submitted for publication.

MEMBERS OF THE GROUP



STUDENTS: Eszter Bakó, Garmaa Gantsetseg, Eszter Gulyás, István László Horváth, Kata Illés, Fanni Adél Meznerics

SUPERVISORS: András Bánvölgyi (Supervisor of the month: July 2022, January 2023), Andrea Böszörményi, Dezső Csupor, Tamás Horváth (Supervisor of the month: September 2022), Gellért Balázs Karvaly, Gábor Kökény



AGE 39 years EDUCATION pharmacist SUPERVISOR(S) NAndrea Böszörményi E-MAIL bakoeszterdr@gmail.com



SEMMELWEIS UNIVERSITY, DEPARTMENT OF PHARMACOGNOSY AND TOXICOLOGY



торіс

Pharmacology - Plant-derived products

VISION

The best science to create the best product.

MISSION

To provide more scientific evidence for herbal therapies.

SPECIFIC GOALS

PROJECT 1: Investigating the efficacy of topically applied essential oils in musculoskeletal disorders: a systematic review and meta-analysis **PROJECT 2:** Investigating the volatile constituents of Pinaceae and Cupressaceae families: principal component analysis

PROGRESS LEVEL Individual

AGE 34 years EDUCATION medical doctor SUPERVISOR(S) Gábor Kökény E-MAIL gantsetseg.garmaa@ gmail.com

GARMAA GANTSETSEG

SEMMELWEIS UNIVERSITY, INSTITUTE FOR TRANSLATIONAL MEDICINE

TOPIC

Molecular research - Chronic kidney disease

VISION

Contribute to promote healthy communities supported by evidence based and translational medicine.

MISSION

To promote antibiotic therapy in intensive care; become an expert in the utilization of antibiotic therapeutic drug monitoring results.

PUBLISHED ARTICLE(S)

PROJECT 1: To investigate the effect of betalactam TDM in critically ill patients: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** To evaluate the pharmacokineticsbased guidance of colistin therapy: protocol Project started: October 2021

PROGRESS LEVEL Completed

SPECIFIC GOALS

PROJECT 1: Garmaa, G. et al. (2023) HK-2 cell response to TGF-β highly depends on cell culture medium formulations *Histochem Cell Biol*, **Q1**, **IF:** 2.300



AGE 31 years EDUCATION clinical hospital pharmacist SUPERVISOR(S) Gellért Balázs Karvaly E-MAIL gulyas eszter@pharm

gulyas.eszter@pharma. semmelweis-univ.hu

ESZTER GULYÁS

SEMMELWEIS UNIVERSITY, UNIVERSITY PHARMACY DEPARTMENT OF PHARMACY ADMINISTRATION



TOPIC

Pharmacology - Musculoskeletal disorders

VISION

To facilitate strong cooperation between clinical pharmacists, clinicians and the clinical laboratory concerning the antibiotic therapy of the critically ill.

MISSION

To promote antibiotic therapy in intensive care; become an expert in the utilization of antibiotic therapeutic drug monitoring results.

SPECIFIC GOALS

PROJECT 1: To investigate the effect of betalactam TDM in critically ill patients: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** To evaluate the pharmacokineticsbased guidance of colistin therapy: protocol Project started: October 2021

PROGRESS LEVEL

Individual



AGE 32 years **EDUCATION**

clinical hospital pharmacist SUPERVISOR(S)

Dezső Csupor E-MAIL horvath.istvan@pharma.se mmelweis-univ.hu





AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Tamás Horváth E-MAIL i.kataaaa@gmail.com





AGE 27 years **EDUCATION** medical doctor SUPERVISOR(S) András Bánvölgyi E-MAIL f.meznerics@gmail.com



ISTVÁN LÁSZLÓ HORVÁTH

SEMMELWEIS UNIVERSITY, UNIVERSITY PHARMACY DEPARTMENT OF PHARMACY ADMINISTRATION

TOPIC

Pharmacology - Acute pancreatitis

VISION

Pharmacists have an essential role in the multidisciplinary team.

MISSION

Develop official clinical pharmacy services in Hungary.

PUBLISHED ARTICLE(S)

PROJECT 1: To investigate ulinastatin-

SPECIFIC GOALS

somatostatin analogue combination therapy in acute pancreatitis: systematic review and metaanalysis of randomized controlled trials Project started: September 2021 PROJECT 2: To investigate the effect of proton pump inhibitors in acute pancreatitis: systematic review and meta-analysis Project started: January 2022

PROGRESS LEVEL

Graduate

PROJECT 1: Horváth, I.L. et al. (2022) The combination of ulinastatin and somatostatin reduces complication rates in acute pancreatitis: a systematic review and meta-analysis of randomized controlled trials Sci Rep, Q1, IF: 4.600

PROJECT 2: Horváth, I.L. et al. (2023) No evidence for the benefit of PPIs in the treatment of acute pancreatitis: a systematic review and meta-analysis Sci Rep, Q1, IF: 4.600

KATA ILLÉS

TOPIC

VISION

MISSION

evidence.

BAJCSY-ZSILINSZKY HOSPITAL AND CLINIC, DEPARTMENT OF OTO- RHINO-LARYNGOLOGY AND HEAD- AND NECK SURGERY



SPECIFIC GOALS

PROJECT 1: Mastoid obliteration decreases the recurrent and residual disease: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Investigating the predictive factors of the success rate after tympanic membrane reconstruction: a systematic review and metaanalysis Project started: October 2021

PROGRESS LEVEL

Graduate

PUBLISHED ARTICLE(S)

field of middle ear surgery.

PROJECT 1: Illés, K. et al. (2023) Factors influencing successful reconstruction of tympanic membrane perforations: a systematic review and meta-analysis. Biomedicines, Q1, IF: 4.700 PROJECT 2: Illés K. et al. (2023) Reply to Mastoid Obliteration Decreases the Recurrent and Residual Disease: Systematic Review and Meta-Analysis. Laryngoscope, D1, IF: 2.600

FANNI ADÉL MEZNERICS

Otorhinolaryngology - Cholesteatoma

Clinicians use the most effective therapeutic options in the

Investigate therapeutic options and create high-level

SEMMELWEIS UNIVERSITY, DEPARTMENT OF DERMATOLOGY

TOPIC

Dermatology - Rheumatology

VISION

Patients with chronic dermatological and rheumatological disorders could have a better quality of life.

MISSION

Urging the implementation of novel disease modifying and monitoring methods in clinical practice.

SPECIFIC GOALS

PROJECT 1: Multi-Biomarker Disease Activity score: an objective tool for monitoring rheumatoid arthritis? A systematic review and meta-analysis. Project started: October 2021 PROJECT 2: Platelet-rich plasma in chronic wound management. A systematic review and metaanalysis of randomized clinical trials. Project started: October 2021

PROGRESS LEVEL Graduate

PUBLISHED ARTICLE(S)

PROJECT 1: Meznerics, FA. et al. (2022) Platelet-Rich Plasma in Chronic Wound Management: A Systematic Review and Meta-Analysis of Randomized Clinical Trials. Rheumatology, Q1, IF: 5.500 PROJECT 2: Meznerics, FA. et al. (2022) Multibiomarker disease activity score: an objective tool for monitoring rheumatoid arthritis? A systematic review and meta-analysis. Rheumatology, Q1, IF: 5.500









GROUP 2 DENTISTRY



GROUP MEETINGS WEDNESDAY, 6:30 PM - 8:00 PM

INTRODUCTION TO THE GROUP

The third-year dentistry group is part of the Dentistry group, where 22 students and 15 supervisors, work in various fields of medicine. Five students are in the completed group, 11 students are in the excellence/ accelerator group, and 6 students are in the individual group. The group includes disciplines such as prosthodontics, community dentistry, endodontics, maxillofacial surgery, and oral surgery. As all the dental fields are represented in the group, a multidisciplinary approach to the discussion of clinical topics presents a unique opportunity for both PhD students and supervisors. All students are conducting systematic reviews and meta-analyses to improve clinical practice and knowledge. Furthermore, several clinical trials and registries are conducted to prove high-quality evidence in their fields. The SMSs of the team are Bianca Golzio, Brigitta Teutsch, Marie Engh, Szilárd Váncsa, Alexander Schulze Wenning, and Kata Kelemen who are coordinating a huge variety of topics. Group leaders are Péter Hermann, Gábor Varga, and Gábor Gerber, acknowledged experts in their field at Semmelweis University.

MEMBERS OF THE GROUP



STUDENTS: Zsuzsanna Domokos, Bianca Golzio Navarro Cavalcante, Kata Kelemen, János König, Anna Németh, Alexander Schulze Wenning, Eleonóra Sólyom, Eszter Ágnes Szalai, Péter Tajti, Eszter Uhrin, Viktória Vitai

SUPERVISORS: Judit Borbély (Supervisor of the month: April 2023), Réka Fazekas, Gábor Gerber, Péter Hermann, Beáta Kerémi (Supervisor of the month: January 2023), Krisztina Ágnes Mikulás (Supervisor of the month: June 2023, September 2023), Bálint Molnár, Orsolya Németh (Supervisor of the month: March 2023), Gábor Varga



AGE 26 years EDUCATION dentist SUPERVISOR(S) Orsolya Németh E-MAIL domokoszsuzsa23@gmail. com

ZSUZSANNA DOMOKOS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF COMMUNITY DENTRISTRY

TOPIC

Dentistry - Periodontology

VISION

Develop interdisciplinar knowledge by investigating the association between dental diseases and systematic diseases and improving the treatment involving dentists and medical doctors.

MISSION

Incorporate a multidisciplinary attitude into clinical practice based on a comprehensive knowledge.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: Investigation of the associaton between different multifactorial diseases: periodontal disease and inflammatory bowel diseases Systematic review and meta-analysis Project started: September 2021 PROJECT 2: Association between matrix metalloproteinase-8 and clinical parameters in periodontitis Systematic review and meta-analysis

Project started: January 2022

PROGRESS LEVEL Completed

PROJECT 1: Domokos, Zs. et al. (2022) Patients with inflammatory bowel disease have a higher chance of developing periodontitis: A systematic review and meta-analysis *Cancer Immunol Immunother*, **Q1**, **IF:** 5.800 *Front Med*, **Q1**, **IF:** 3.900

BIANCA GOLZIO NAVARRO CAVALCANTE

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORAL BIOLOGY

ΤΟΡΙΟ

Dentistry - Conservative dentistry

VISION

To translate clinical problems into high-level science.

MISSION

To bring to clinical practice the possibilities of non-invasive approaches for dental enamel related problems.

SPECIFIC GOALS

PROJECT 1: Efficacy of CPP-ACP on remineralization of white spot lesions compared to fluoride therapies alone: a systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** Strategies for the management of hypersensitivity and remineralization of teeth affected by Molar-Incisor Hypomineralization (MIH): a systematic review and meta-analysis Project started: June 2022

PROGRESS LEVEL Individual

KATA KELEMEN

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



TOPIC

Dentistry - TMJ

VISION

To establish a TMD treatment protocol, that is available for all patients apart from the localisation of the dental offices.

MISSION

To make an emphasis on prevention and therapy by a multidisciplinary team and also to have proper funding to increase the level of evidence.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: Investigating the conservative therapeutic possibilities for myogenic temporomandibular disorders Project started: September 2021 **PROJECT 2:** Investigating the conservative therapeutic possibilities for arthrogenic temporomandibular disorders Project started: October 2021

PROGRESS LEVEL

Excellence

PROJECT 1: Kelemen, K. et al. (2023) Additional splint therapy has no superiority in myogenic temporomandibular disorders: A systematic review and meta-analysis of randomized controlled trials. *Journal of Prosthodontic Research*, **D1**, **IF:** 4.338



AGE 29 years EDUCATION dentist SUPERVISOR(S) Gábor Varga E-MAIL biancagolzio@hotmail.com





AGE 29 years EDUCATION dentist SUPERVISOR(S) Péter Hermann E-MAIL kelemenkata18@gmail.com





AGE 30 years EDUCATION dentist SUPERVISOR(S) Péter Hermann E-MAIL janoskonigdmd@gmail.com JÁNOS KÖNIG

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS

TOPIC

Dentistry - Maxillofacial prosthodontics

VISION An evidence-based Maxillofacial Prosthodontics.

MISSION To establish proper scientific output.

SPECIFIC GOALS

PROJECT 1: Optical scanning should be the new standard in facial prosthetics: a systematic review and meta-analysis **PROJECT 2:** Rehabilitation of maxillectomy is based on controversial evidence: a systematic

PROGRESS LEVEL Completed

review and meta-analysis

Completed

PROJECT 1: König J. et al. (2023) Current status of optical scanning in facial prosthetics: A systematic review and meta-analysis *Journal of Prosthodontic Research*, **D1**, **IF:** 4.338



AGE 27 years EDUCATION dentist SUPERVISOR(S) Judit Borbély E-MAIL nemethanna18@gmail.com



ANNA NÉMETH

Dentistry - Prosthodontics

printing technology as a routine.

3D printing to clinical practice.

TOPIC

VISION

MISSION

PUBLISHED ARTICLE(S)

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



SPECIFIC GOALS

PROJECT 1: Clear guidance to select the most accurate technology for 3D printing dental models: a network meta-analysis
Project started: September 2021
PROJECT 2: Comparative study of additive and subtractive manufacturing of fixed dental restorations: a systematic review and meta-analysis
Project started: October 2021

PROGRESS LEVEL Accelerator

PUBLISHED ARTICLE(S)

PROJECT 1: Németh, A. et al. (2023) Clear guidance to select the most accurate technologies for 3D printing dental models – A network meta-analysis *J Dent*, **D1**, **IF:** 4.000



AGE 30 years EDUCATION medical doctor SUPERVISOR(S) Gábor Varga, Gábor Gerber E-MAIL

a.schulzewenning@gmail.com



ALEXANDER SCHULZE WENNING

High quality digital prosthodontic treatment using 3D

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORAL BIOLOGY

TOPIC

Dentistry - Maxillofacial surgery

VISION

No cleft baby left untreated.

MISSION

To reduce invasiveness through research based clinical decision making. Spreading awareness.

SPECIFIC GOALS

PROJECT 1: One-stage or two-stage palatoplasty, analyzing maxillofacial growth in patients with uniand bilateral cleft lip and palate: Systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** Determining the optimal timing for palatoplasty, analyzing maxillofacial growth in patients with uni- and bilateral cleft lip and palate: Systematic review and meta-analysis Project started: January 2023



AGE 29 years **EDUCATION** dentist SUPERVISOR(S) Réka Fazekas, Bálint Molnár E-MAIL eleonorasolyom@gmail.com



AGE 38 years **EDUCATION** dentist SUPERVISOR(S) Beáta Kerémi E-MAIL szalai.eszter85@gmail.com





AGE 28 years **EDUCATION** dentist SUPERVISOR(S) Krisztina Ágnes Mikulás E-MAIL

tajti.peter@dent. semmelweis-univ.hu



ELEONÓRA SÓLYOM

SEMMELWEIS UNIVERSITY, DEPARTEMENT OF CONSERVATIVE DENTISTRY

TOPIC

Dentistry - Periodontology

VISION To change the mindset of tooth extraction.

MISSION

None of the extraction sockets should be left unpreserved.

SPECIFIC GOALS

PROJECT 1: Safety and Efficacy of Autogenous Tooth Bone graft for Alveolar Ridge Preservation: a systematic review and meta-analysis Project started: September 2021 Submission date: August 2022 PROJECT 2: Clinical, radiographical, histological evaluation and blood flow analysis of hard- and soft-tissue changes following alveolar ridge preservation : protocol of a randomized clinical trial Submission date: June 2023

PROGRESS LEVEL Completed

PUBLISHED ARTICLE(S)

PROJECT 1: Sólyom, E. et al. (2023) The use of autogenous tooth bone graft is an efficient method of alveolar

ridge preservation - meta-analysis and systematic review BMC Oral Health, Q1, IF: 2.900

ESZTER ÁGNES SZALAI

SEMMELWEIS UNIVERSITY, DEPARTEMENT OF CONSERVATIVE DENTISTRY

TOPIC

Dentistry - Halitosis

VISION

To find the best solution for diagnostic and managing halitosis.

MISSION

To contribute to oral health and well-being by providing the best care

SPECIFIC GOALS

PROJECT 1: Daily use of chlorine dioxide effectively treats halitosis: a systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** Organoleptic and halitometric assessments do not correlate well in intra-oral halitosis: a systematic review and meta-analysis Project started: October 2021

PROJECT 1: Clinical outcomes of monolithic

zirconia and metal-ceramic implant-supported

PROJECT 2: The influence of abutment height on

crestal bone stability and peri-implant soft tissue

PROGRESS LEVEL Completed

SPECIFIC GOALS

single restorations

PROGRESS LEVEL

Completed

Project started: September 2021

Project started: May 2022

PUBLISHED ARTICLE(S)

PROJECT 1: Szalai, EÁ. et al. (2023) Daily use of chlorine dioxide effectively treats halitosis: A meta-analysis of randomised controlled trials

PLoS ONE, Q1, IF: 3.700 PROJECT 2: Szalai, EÁ. et al. (2023) Organoleptic and Halitometric Assessments Do Not Correlate Well in Intraoral Halitosis: a Systematic Review and Meta-analysis J Evid Based Dent Pract, Q1, IF: 3.600

PÉTER TAJTI

SEMMELWEIS UNIVERSITY. DEPARTMENT OF PROSTHODONTICS

TOPIC

Dentistry - Implantology

VISION

To provide the best treatment for my patients in implant rehabilitation.

MISSION

Implementing the fully digital workflow in every aspect of implant rehabilitation.

PUBLISHED ARTICLE(S)

PROJECT 1: Tajti, P. et al. (2023) Monolithic zirconia as a valid alternative to metal-ceramic for implantsupported single crowns in the posterior region: A systematic review and meta-analysis of randomized controlled trials. J Prosthet Dent, Q1, IF: 4.148

PROJECT 2: Tajti, P. et al. (2023) Less marginal bone loss around bone-level implants restored with long abutments: A systematic review and meta-analysis. Periodontol 2000, Q1, IF: 18.600







AGE 28 years EDUCATION dentist SUPERVISOR(S) Orsolya Németh E-MAIL eszter1221uhrin@gmail.com

ESZTER UHRIN

Dentistry - Teledentistry

A teledentistry application.

primary dental care.

Using teledentistry in the diagnosis of oral lesions in

TOPIC

VISION

MISSION

SEMMELWEIS UNIVERSITY, DEPARTMENT OF COMMUNITY DENTRISTRY



SPECIFIC GOALS

PROJECT 1: Teledentistry: A Future Solution In The Diagnosis Of Oral Lesions: A Diagnostic Metaanalysis And Systematic Review Project started: September 2021 PROJECT 2: The Effect Of Oral Healthcare Prevention Program For Post-stroke Inpatients' Oral Hygiene: A Systematic Review And Metaanalysis Project started: October 2021

Project started. October 20

PROGRESS LEVEL

Accelerator

PROJECT 1: Uhrin, E. et al. (2023) Teledentistry: A Future Solution in the Diagnosis of Oral Lesions: Diagnostic Meta-Analysis and Systematic Review *Telemedicine and e-Health*, **Q1**, **IF:** 4.700



AGE 30 years EDUCATION dentist SUPERVISOR(S) Judit Borbély E-MAIL vitai.viktoria@ dent.semmelweis-univ.hu

VIKTÓRIA VITAI

Dentistry - Digital dentistry

TOPIC

VISION

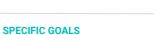
MISSION

PUBLISHED ARTICLE(S)

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS

High-end digital Prosthodontics available for all patients.

Intraoral scanning systems to prosthodontic workflow.



PROJECT 1: Evaluation of the accuracy of intraoral scanners for complete-arch scanning: a systematic review and meta-analysis Project started: Sentember 2021

PROJECT 2: Comparison of Tooth Shade selection with Intraoral Scanners to Spectrophotometers: a systematic review and meta-analysis Project started: October 2021

PROGRESS LEVEL Accelerator

PUBLISHED ARTICLE(S)

PROJECT 1: Vitai, V. et al. (2023) Evaluation of the accuracy of intraoral scanners for complete-arch scanning: A systematic review and network meta-analysis *J Dent*, **D1**, **IF:** 4.400

GROUP 3 GYNECOLOGY & UROLOGY





GROUP 3 GYNECOLOGY & UROLOGY

INTRODUCTION TO THE GROUP

02/22

The Gynecology and Urology third-year group is part of the 2nd and 3rd-year group, which has 20 supervisors and 26 students, 14 with the status of individual students, 6 accelerators, and 6 completed. The members have a wide range of interests ranging from female genital beautification surgeries, endocrine disorders, biomarkers, and dietary supplementations, premature delivery, female and male infertility, and precision oncology and radiology. The group is planning to complete 60 projects, of which 46 are meta-analyses that resulted in 13 publications, 8 registries, and 4 clinical trial protocols. The two SMSs are Jakub Hoferica and Isabel Amorim. Jakub, a PhD student in gastroenterology, and Isabel, a PhD student in gynecology. The leaders of the group are Professor Nándor Ács and Professor Péter Nyirády, internationally renowned experts in their fields. Professor Ács's main interests are female genital plastic surgeries, laser treatments for the improvement of sexual life, transvaginal surgeries, and perimenopausal changes and treatments. Professor Nyirády's fields of interest are uro-oncology and robotic- and laparoscopic surgeries.

MEMBERS OF THE GROUP





PÉTER NYIRÁDY Group Leader



JAKUB HOFERICA Scientific Methodology Supervisor



ISABEL P. A. DAS VIRGENS Scientific Methodology Supervisor



Scientific Methodology Supervisor



BRIGITTA TEUTSCH Scientific Methodology Supervisor



ANDREA HARNOS Statistician

STUDENTS: István Baradács, Tamás Fazekas, Teodóra Filipov, Dorina Greff, Balázs Hamar, Eszter Hoffmann, Anna Evelin Juhász, Balázs Komoróczy, Ákos Mátrai, Boglárka Pethő, Anett Szabó, Ádám Dániel Széles

SUPERVISORS: Nándor Ács, Zsófia Benkő, Pál Ákos Deák, Csaba Demendi, Réka Hermanné Juhász (Supervisor of the month: November 2022), Eszter Mária Horváth, Zsolt Kopa (Supervisor of the month: July 2023), Balázs Lintner, Zsolt Melczer, Tibor Szarvas (Supervisor of the month: December 2022, May 2023), Szabolcs Várbíró



AGE 29 years **EDUCATION** medical doctor SUPERVISOR(S) Balázs Lintner E-MAIL baradacsist@gmail.com



AGE 31 years **EDUCATION** medical doctor SUPERVISOR(S) Tibor Szarvas E-MAIL fazekastamas192@gmail. com



ISTVÁN BARADÁCS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Oncology

VISION

The molecular targeted therapy could completely change oncological treatment.

MISSION

To learn about the possibilities offered by individualized therapy of gynecological cancers and get them to the bedside

SPECIFIC GOALS

PROJECT 1: Efficacy and Safety of Poly (ADPribose) Polymerase (PARP) Inhibitor Therapy for Advanced Ovarian Cancer: a systematic review and meta-analysis

Project started: September 2021 PROJECT 2: Efficacy and Safety of Combination Therapy with PARP Inhibitors and Anti-Angiogenic Agents in Ovarian Cancer: a systematic review and meta-analysis

Project started: January 2022

PROGRESS LEVEL Individual

TAMÁS FA7FKAS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF UROLOGY

TOPIC

Urology - Oncology

VISION

Precision medicine and individual molecular targeted therapy - a major breakthrough in oncology.

MISSION

To find biomarkers which can guide optimal therapy sequencing in prostate and bladder cancers.

SPECIFIC GOALS

PROJECT 1: Different therapeutic sensitivity to abiraterone, enzalutamide and docetaxel in BRCA Positive Metastatic Castration-resistant Prostate Cancer Patients:

a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** PARP Inhibitors have Comparable Efficacy to Platinum Chemotherapy in Patients with BRCA-Positive Metastatic Castrationresistant Prostate Cancer a systematic review and meta-analysis Project started: November 2021

PROGRESS LEVEL

Completed

PUBLISHED ARTICLE(S)

PROJECT 1: Fazekas, T. et al. (2022) Therapeutic sensitivity to standard treatments in BRCA positive metastatic castration-resistant prostate cancer patients-a systematic review and meta-analysis Prostate Cancer Prostatic Dis, D1, IF: 4.800

PROJECT 2: Fazekas, T. et al. (2023) Poly (ADP-ribose) Polymerase Inhibitors Have Comparable Efficacy with Platinum Chemotherapy in Patients with BRCA-positive Metastatic Castration-resistant Prostate Cancer. A Systematic Review and Meta-analysis

Eur Urol Oncol, D1, IF: 8.200



AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Pál Ákos Deák E-MAIL filipovdora@gmail.com

TEODÓRA FILIPOV

TOPIC

VISION

MISSION

Radiology - Urology

SEMMELWEIS UNIVERSITY, DEPARTMENT OF TRANSPLANTATION AND SURGERY



SPECIFIC GOALS

PROJECT 1: Ultrasound-based shear wave elastography of fibrosis correlates with biopsy findings in kidney transplanted patients: A systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Percutaneous US guided cryoablation of fibroadenomas: Protocol for an interventional one arm open label clinical trial Project started: December 2021

PROGRESS LEVEL Individual



To lower patient discomfort by offering minimally invasive

treatment options and less invasive diagnostic tools.

To research novel techniques and stay up to date.





AGE 27 years **EDUCATION** medical doctor SUPERVISOR(S)

Szabolcs Várbíró, Eszter Mária Horváth E-MAIL greffdorina@gmail.com



SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Nutrition

VISION

Increase fertility and complication-free pregnancy rate.

MISSION

Novel prevention strategies, improve carbohydrate metabolism

SPECIFIC GOALS

PROJECT 1: Inositol is an effective and safe treatment in polycystic ovary syndrome: a systematic review and meta-analysis of randomized controlled trials Project started: September 2021 **PROJECT 2:** Myoinositol prevents gestational diabetes mellitus and related complications: a systematic review and meta-analysis of randomized controlled trials Project started: October 2021

PROGRESS LEVEL

Completed

PROJECT 1: Greff, D. et al. (2023) Inositol is an effective and safe treatment in polycystic ovary syndrome: a systematic review and meta-analysis of randomized controlled trials Biomedicines, Q1, IF: 4.700

PROJECT 2: Greff, D. et al. (2023) Myoinositols Prevent Gestational Diabetes Mellitus and Related Complications: A Systematic Review and Meta-Analysis of Randomized Controlled Trials Nutrients, D1, IF: 5.900

BALÁZS HAMAR

PUBLISHED ARTICLE(S)

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Oncology

VISION

Primary HPV detection based cervical cancer screening in Hungary in the next 5 year above 30 years age group.

MISSION

To change the Hungarian guideline on cervical cancer screening and treatment.

SPECIFIC GOALS

PROJECT 1: Trichomonas vaginal infection is associated with increased risk for cervical carcinogenesis: a systematic review and metaanalysis

Project started: September 2021 PROJECT 2: The effect of topical imiquimod treatment on reducing cervical intraepithelial neoplasia: systematic review and meta-analysis Project started: March 2022

PROGRESS LEVEL

Completed

PUBLISHED ARTICLE(S)

PROJECT 1: Hamar, B. et al. (2023) Trichomonas vaginalis infection is associated with increased risk of cervical carcinogenesis: A systematic review and meta-analysis of 470 000 patients Int J Gynecol Obstet, Q1, IF: 3.800

ESZTER HOFFMANN

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

TOPIC

Obstetrics, gynecology - Perinatology

VISION

Contribute to the prevention of preterm birth.

MISSION

Improving the protocol for the treatment and prevention of vaginal infection during pregnancy.

SPECIFIC GOALS

PROJECT 1: Routine screening of vaginal flora during pregnancy reduces the odds of preterm births: a systematic review and meta-analysis: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Investigating the efficacy of treatment of abnormal vaginal flora during pregnancy to reduce the rate of preterm birth and premature rupture of membranes: a systematic review and meta-analysis Project started: October 2021

PROGRESS LEVEL

Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Hoffmann, E. et al. (2023) Routine screening of abnormal vaginal flora during pregnancy reduces the odds of preterm birth: a systematic review and meta-analysis Sci Rep, D1, IF: 4.100



28 years **EDUCATION** medical doctor SUPERVISOR(S) Zsolt Melczer E-MAIL balazs.hamar@gmail.com



AGE 30 years **EDUCATION** medical doctor SUPERVISOR(S) Csaba Demendi, Nándor Ács E-MAIL h.eszter@icloud.com









AGE 27 years **EDUCATION** dietetian SUPERVISOR(S) Réka Hermanné Juhász E-MAIL juhaszannaevelin@gmail. com



ANNA EVELIN JUHÁS7

ALBERT SCHWEITZER HOSPITAL, HATVAN

TOPIC

Obstetrics, gynecology - Nutrition

VISION

Normalise the metabolic disorders of the patients by receiving dietary fiber instead of medication.

MISSION

To draw the attention of physicians to the results of studies regarding the dietary management of polycystic ovary syndrome.

PUBLISHED ARTICLE(S) PROJECT 1: Name Surname et al (2022) Galactomannans are the most effective soluble dietary fibers in type 2

Am J Clin Nutr, Q1, IF: 7.100 PROJECT 2: Name Surname et al (2023) Reply to Zurbau et al.

SPECIFIC GOALS

PROJECT 1: Ranking the effects dietary fibers on glycemic control and lipid profiles in patients with type 2 diabetes Project started: September 2021 **PROJECT 2:** Investigating the most effective dietary approaches in women with polycystic ovary syndrome (PCOS) Project started: March 2022

PROGRESS LEVEL

Individual

diabetes: a systematic review and network meta-analysis

Am J Clin Nutr, D1, IF: 7.100



AGE 33 years **EDUCATION** medical doctor SUPERVISOR(S) Zsófia Benkő E-MAIL

komoroczy.balazs@gmail. com



AGE 33 years **EDUCATION** medical doctor SUPERVISOR(S) Nándor Ács E-MAIL

BALÁZS KOMORÓC7Y

Obstetrics, gynecology - Preterm birth

fetal and maternal complications.

complications leading to preterm birth.

To prevent adverse pregnancy outcomes e.g.

preeclampsia and preterm birth to reduce avoidable

To develop a reliable screening model for pregnancy

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

SPECIFIC GOALS



PROJECT 1: Optimal dose of Aspirin that prevents adverse pregnancy outcomes: a systematic review and meta analysis Project started: September 2021 **PROJECT 2:** Screening for spontaneous preterm birth in singleton pregnancies: protocol of of an observational study Project started: November 2021

PROGRESS LEVEL Individual

matraiakos@gmail.com

ÁKOS MÁTRAI

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

TOPIC

TOPIC

VISION

MISSION

Obstetrics, gynecology - Infectology

VISION

Provide optimal pregnancy care that contributes to the birth of healthy fetuses.

MISSION

Highlight the risk of infectious diseases during pregnancy.

SPECIFIC GOALS

PROJECT 1: First-trimester influenza infection increases the odds of non-chromosomal birth defects: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Investigation of the effects of maternal influenza during pregnancy on birth defects in the Hungarian Population between 1980 and 2009: a population based case-control study, cohort analysis Project started: October 2021

PROGRESS LEVEL

Completed

PUBLISHED ARTICLE(S)

PROJECT 1: Mátrai Á. et al. (2022) First-Trimester Influenza Infection Increases the Odds of Non-Chromosomal Birth Defects: A Systematic Review and Meta-Analysis Viruses, Q1, IF: 4.700



AGE 34 years **EDUCATION** medical doctor

SUPERVISOR(S) Nándor Ács E-MAIL dr.pethoboglarka@gmail. com





AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Zsolt Kopa E-MAIL a.szabo1995@gmail.com



AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) **Tibor Szarvas** E-MAIL szelesadam95@gmail.com



BOGLÁRKA PETHŐ

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNECOLOGY



TOPIC

Obstetrics, gynecology - Perinatology

VISION

Creating new knowledge to provide the best care for pregnant women to improve pregnancy outcomes.

MISSION

Improving the reliability of screening of non-chromosomal birth defects.

SPECIFIC GOALS

PROJECT 1: Investigation of the Impact of Maternal Age on the Development of Congenital Anomalies in Hungarian Population between 1980 and 2009: population based study PROJECT 2: Investigation of the Impact of Maternal Age on the Development of Congenital Anomalies: systematic review and meta-analysis

PROGRESS LEVEL Completed

ANETT SZABÓ

SEMMELWEIS UNIVERSITY, DEPARTMENT OF UROLOGY



TOPIC Urology - Andrology

VISION

Educate patients regarding our findings on risk factors impacting fertility.

MISSION

Larger-scale education of the population.

SPECIFIC GOALS

PROJECT 1: Risk factors associated with sperm DNA fragmentation: a systematic review and metaanalysis Project started: September 2021 PROJECT 2: Efficacies of interventions aiming to improve sperm DNA fragmentation: a systematic review and meta-analysis Project started: September 2021

PROGRESS LEVEL

Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Szabó, A. et al. (2023) Lifestyle-, environmental-, and additional health factors associated with an increased sperm DNA fragmentation: a systematic review and meta-analysis Reprod Biol Endocrinol, Q1, IF: 4.400

ÁDÁM DÁNIEL SZÉLES

SEMMELWEIS UNIVERSITY, DEPARTMENT OF UROLOGY

TOPIC

Urology - Oncology

VISION

Therapy optimization of urothelial cancers.

MISSION

Utilization of biomarkers in urothelial cancers treated with immune checkpoint inhibitors

SPECIFIC GOALS

PROJECT 1: Pre-treatment soluble PD-L1 as a predictor of overall survival for immune checkpoint inhibitor therapy: a systematic review and metaanalysis: a systematic review and meta-analysis Project started: September 2021 PROJECT 2: High pretreatment sPD-L1 is associated with muscle-invasion and shorter survival in upper tract urothelial carcinoma (UTUC): a post hoc analysis of a prospectively collected serum samples

Project started: November 2021

PROGRESS LEVEL Completed

PUBLISHED ARTICLE(S)

PROJECT 1: Széles, ÁD. et al. (2022) High Pretreatment Serum PD-L1 Levels Are Associated with Muscle Invasion and Shorter Survival in Upper Tract Urothelial Carcinoma Biomedicines. 01. IF: 4.700 PROJECT 2: Széles, ÁD. et al. (2022) Pre-treatment soluble PD-L1 as a predictor of overall survival for immune checkpoint inhibitor therapy: a systematic review and meta-analysis Cancer Immunol Immunother, Q1, IF: 5.800

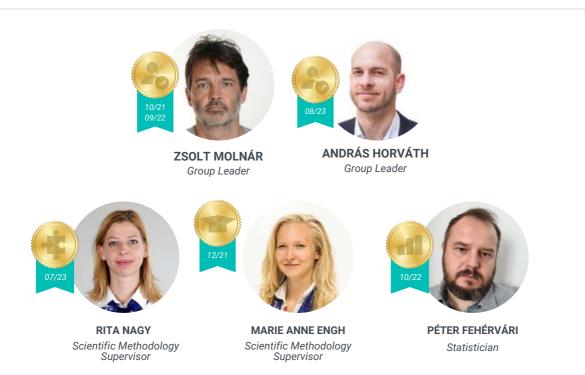
GROUP 4 CARDIOLOGY



INTRODUCTION TO THE GROUP

The third-year Cardiology group is part of the second-third-year Miscellaneous 1 group combining a broad spectrum of topics, including radiology, orthopedics, otolaryngology, neurology, and psychology/psychiatry, alongside cardiology, emergency medicine, and intensive therapy. The resulting blended group consists of 37 students, conducting a total of 81 projects. The students are guided by group leaders Zsolt Molnár, an intensivist, and András Horváth, an expert on neurocognitive disorders, aided by the many excellent supervisors responsible for individual students. The topics investigated range from cholesteatoma, over vital COVID-19 topics, to imaging in orthopedics, traumatology, cardiac disorders, neurology, or even psychiatry. Also, perioperative treatment, interventional cardiology, degenerative neurological disorders, and a range of orthopedic surgeries are being studied. In these very clinical fields, it is no wonder that the students are interested in conducting direct clinical investigations. As such, 27% of the projects chosen are clinical trials, registry analyses, or international surveys. The very productive students of this group have already published 12 of the projects in D1/Q1 journals, and a further 16 projects have been submitted for publication.

MEMBERS OF THE GROUP



STUDENTS: Sara Gharehdaghi Khajeh Ghiasi, Boldizsár Kiss, Péter Márton Kulyassa, Henriette Mészáros, Péter Vámosi, Boglárka Veres

SUPERVISORS: Pál Ábrahám, Gábor Duray, István Ferenc Édes, Annamária Kosztin, Béla Merkely, Sándor Nardai, Zoltán Szeberin, Endre Zima (Supervisor of the month: April 2022)



AGE 43 years EDUCATION medical doctor SUPERVISOR(S) Gábor Duray E-MAIL saraghrh@gmail.com

SARA GHAREHDAGHI KHAJEH GHIASI

GOTTSEGEN NATIONAL CARDIOVASCULAR CENTRE, BUDAPEST

TOPIC

Interventional cardiology - Leadless pacemakers

VISION

Introducing innovative approaches in medicine through Translational research from bedside to bench and bench to bedside, for my patients all over the world.

MISSION

Semmelweis University-Cardiovascular medicine as a national leader in health for the purpose of improving the health and well-being of Hungarians and beyond.

SPECIFIC GOALS

PROJECT 1: Intracardiac Leadless pacemaker: long term safety over traditional pacemakers: a systematic review and meta-analysis Project started: September 2021 PROJECT 2: Real life patient selection and indication of leadless pacemakers: International Survey Study Project started: October 2021

PROGRESS LEVEL Individual



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Endre Zima E-MAIL b.kiss96@gmail.com



SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE

TOPIC

Cardiology - Resuscitation

VISION

The best medical knowledge and practice needs a constant update by scientific research.

MISSION

Develop and refine intensive care strategies for resuscitated patients.

SPECIFIC GOALS

PROJECT 1: Investigation of prediction scores in out-of-hospital cardiac arrest: a systematic review and meta-analysis

PROJECT 2: Prophylactic versus clinically-driven antibiotics after successful resuscitation: a systematic review and meta-analysis

PROGRESS LEVEL Individual



AGE 31 years EDUCATION medical doctor SUPERVISOR(S) István Ferenc Édes E-MAIL peter.kulyassa@gmail.com



PÉTER MÁRTON KULYASSA

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE

TOPIC

Interventional cardiology - Drug-eluting stents

VISION

To reduce the burden of coronary heart disease with improved coronary interventions.

MISSION

Decreasing the need of recurrent revascularization and the rate of complications.

SPECIFIC GOALS

PROJECT 1: Drug coated balloon effectivity in the treatment of early and late drug eluting stent instent restenosis a systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** RAPHE: Radial Artery Puncture Hemostasis Evaulation protocol publication of a multicentre randomised controlled trial Project started: October 2021 **PROGRESS LEVEL** Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Kulyassa, PM. et al. (2023) Drug-coated balloon therapy is more effective in treating late drugeluting stent in-stent restenosis than the early occurring one—a systematic review and meta-analysis *Front Cardiovasc Med*, **Q1**, **IF:** 5.846





AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Béla Merkely, Sándor Nardai,

Pál Ábrahám E-MAIL meszaros.henriette0923@ gmail.com

HENRIETTE MÉSZÁROS

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE

торіс

Cardiology - Left atrial strain analysis

VISION

The detection of atrial fibrillation requires expensive prolonged monitoring.

MISSION

TOPIC

VISION

MISSION

To decrease the neccesity of prolonged monitoring.

SPECIFIC GOALS

PROJECT 1: Baseline differences exist in left atrial deformation imaging parameters in patients developing atrial fibrillation in the future: a systematic review and meta-analysis **PROJECT 2:** Effect of high versus low mesh density device on atrial strain in patients with patent foramen ovale: protocol of a single-centre randomised trial

PROGRESS LEVEL Individual



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Béla Merkely, Annamária Kosztin E-MAIL

eboglarka.sara.veres@gm ail.com

BOGLÁRKA VERES

evidence-based therapy.

everyday clinical practice.

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTER

Interventional cardiology - Cardiac resynchronization

To help heart failure patients receive the most effective,

To conclude from observations, which we can include in



SPECIFIC GOALS

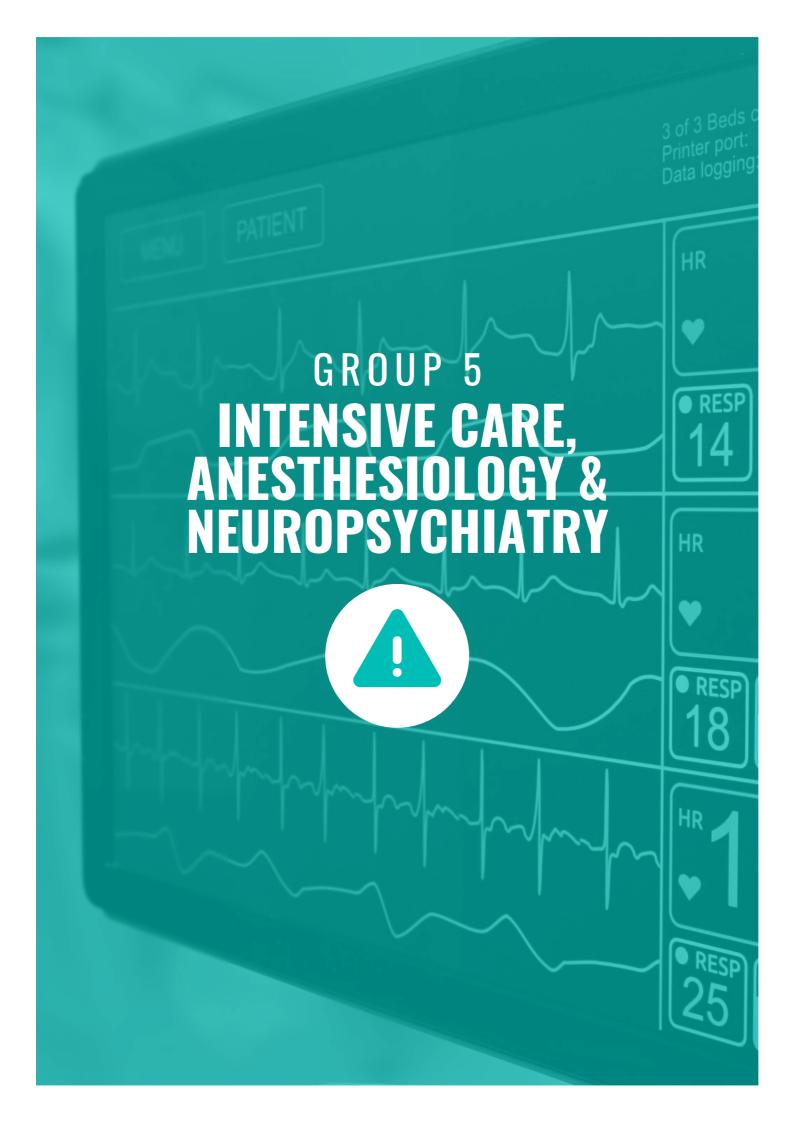
PROJECT 1: The benefits of adding a defibrillator to cardiac resynchronization therapy: a systematic review and meta-analysis **PROJECT 2:** Continuous invasive remote

monitoring in patients with heart failure compared to regular in-clinic follow-up: a systematic review and meta-analysis

PROGRESS LEVEL

Individual

PUBLISHED ARTICLE(S) PROJECT 1: Veres, B. et al. (2023) Time-trend treatment effect of Cardiac Resynchronization Therapy with or without Defibrillator on Mortality -A Systematic Review And Meta-Analysis *Europace*, Q1, IF: 6.100



GROUP 5 INTENSIVE CARE, ANESTHESIOLOGY & NEUROPSYCHIATRY

GROUP MEETINGS MONDAY, 4:30 PM - 6:30 PM

INTRODUCTION TO THE GROUP

The Anesthesiology and neuropsychiatry group make part of the second/third year Miscellaneous 1 group combining a broad spectrum of topics, including radiology, orthopedics, otolaryngology, neurology, and psychology/psychiatry, alongside cardiology, emergency medicine, and intensive therapy. The resulting blended group consists of 37 students, conducting a total of 81 projects. The students are guided by group leaders Zsolt Molnár, an intensivist, and András Horváth, an expert on neurocognitive disorders, aided by the many excellent supervisors responsible for individual students. The topics investigated range from cholesteatoma, over vital COVID-19 topics, to imaging in orthopedics, traumatology, cardiac disorders, neurology, or even psychiatry. Also, perioperative treatment, interventional cardiology, it is no wonder that the students are interested in conducting direct clinical investigations. As such, 27% of the projects chosen are clinical trials, registry analyses, or international surveys. The very productive students of this group have already published 12 of the projects in D1/Q1 journals, and a further 16 projects have been submitted for publication.

MEMBERS OF THE GROUP



STUDENTS: Orsolya Gresits, Zsolt Huszár, Emőke Henrietta Kovács, Katalin Lugosi, Márk Pavlekovics, Anna Réka Sebestyén, Gergő Vilmos Szabó, Ambrus Szemere, Csenge Erzsébet Szigetváry, Caner Turan, Mátyás Vezér

SUPERVISORS: Gábor Csukly (Supervisor of the month: August 2022), Klaudia Horváth, Klára Horváth, Zsolt Illés, Gábor Lovas, Zsolt Mezei, Zsolt Molnár, Máté Rottler, Zoltán Ruszkai, Krisztián Tánczos, Tamás Terebessy (Supervisor of the month: October 2022), Marcell Virág



AGE 34 years EDUCATION medical doctor SUPERVISOR(S) Tamás Terebessy E-MAIL gresits.orsolya@gmail.com

ORSOLYA GRESITS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS

TOPIC

Orthopedics, traumatology - Pediatrics

VISION

Scientific research results are implemented more quickly in daily clinical practice to provide the best possible treatment.

MISSION

Contribute to high-quality research to improve cerebral palsy treatment.

SPECIFIC GOALS

PROJECT 1: No evidence of functional benefit after upper limb botulinum toxin treatment in children with cerebral palsy: a systematic review and metaanalysis

Project started: September 2021 **PROJECT 2:** Does Femoral Derotation Osteotomy Improve Gait in Cerebral Palsy: a systematic review and meta-analysis Project started: November 2021

PROGRESS LEVEL Accelerator



AGE 34 years EDUCATION medical doctor SUPERVISOR(S) Gábor Csukly E-MAIL huszarzss@gmail.com

ZSOLT HUSZÁR

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PSYCHIATRY AND PSYCHOTHERAPY

торіс

Neuropsychiatry - Neurology

VISION

The cognitive decline will be avoidable by the widely used prevention programs.

MISSION

To assist in the development of prevention programs.

SPECIFIC GOALS

PROJECT 1: Evaluate the association between pathological beta-amyloid and p-tau levels and the rate of cognitive decline: systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** Estimate the role of modifiable dementia risk factors according to amyloid status: regitstry analysis Project started: February 2023

PROGRESS LEVEL Individual



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Zsolt Molnár, Krisztián Tánczos E-MAIL emsikee@gmail.com



EMŐKE HENRIETTA KOVÁCS

FUNDENI CLINICAL INSTITUTE, DEPARTMENT OF ANESTHESIOLOGY, BUCHAREST



TOPIC

Intensive care - COVID-19

VISION

To implement new modalities to modify the thromboinflammatory process by further elucidating the underlying mechanisms.

MISSION

To unveil the details of the crosstalk between the inflammatory response and hemostasis in critically ill patients.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: Higher dose anticoagulation cannot prevent disease progression in COVID-19 patients: A systematic review and meta-analysis
Project started: September 2021
PROJECT 2: Effectiveness and safety of fibrinolytic therapy in critically ill COVID-19 patients with ARDS: systematic review and a prospective meta-analysis
Project started: September 2021

PROGRESS LEVEL Completed

PROJECT 1: Kovács, EH. et al. (2022) Effectiveness and safety of fibrinolytic therapy in critically ill patients with COVID-19 with ARDS: protocol for a prospective meta-analysis *BMJ Open*, **Q1**, **IF:** 2.900

PROJECT 2: Kovács, EH. et al. (2022) Investigating the association between IL-6 antagonist therapy and blood coagulation in critically ill patients with COVID-19: a protocol for a prospective, observational, multicentre study *BMJ Open*, **Q1**, **IF**: 2.900







AGE 36 years **EDUCATION** medical doctor SUPERVISOR(S) Zsolt Mezei, Klaudia Horváth E-MAIL lugosikacci@gmail.com

KATALIN LUGOSI

BAJCSY-ZSILINSZKY HOSPITAL AND CLINIC, DEPARTMENT OF NEUROLOGY

TOPIC

Neurology - Multiple sclerosis

VISION

To assist in planning further researches and selecting the most appropriate care in MS cognition.

MISSION

To better understand the specific patterns of cognitive impairment in MS with the aim of improving the management of patients experiencing this condition.

SPECIFIC GOALS

PROJECT 1: Cognitive impairment in different subtypes of multiple sclerosis - a systematic review and meta-analysis. Project started: September 2021 **PROJECT 2:** Association between patient characteristics and cognitive screening test results in patients with multiple sclerosis - a systematic review and meta-analysis. Project started: October 2022

PROGRESS LEVEL Accelerator



AGE 33 years **EDUCATION** medical doctor SUPERVISOR(S) Gábor Lovas, Zsolt Illés E-MAIL mrkpavlekovics@gmail.com

MÁRK PAVLEKOVICS

SEMMELWEIS UNIVERSITY, JAHN FERENC SOUTH-PEST HOSPITAL AND CLINIC

TOPIC

Neurology - Myasthenia Gravis

VISION

Personalized therapies based on evidence and wellorganized patient care systems for patients with neuroimmune disorders.

MISSION

Introducing an up-to-date decision support tool for doctors in all regions of Hungary via a well-designed registry-based platform.

SPECIFIC GOALS

PROJECT 1: To compare the efficacy and safety of plasmaexchange and intravenous immunglobulin in moderate to severe Myasthenia Gravis Relapse: a systematic review and meta-analysis Project started: September 2021 PROJECT 2: NMOSD and MOGAD Registry update (2015 - 2021)Project started: January 2022

PROGRESS LEVEL Individual



AGE 26 years **EDUCATION** medical doctor SUPERVISOR(S) Zsolt Molnár. Marcell Virág E-MAIL annareka97@gmail.com

ANNA RÉKA SEBESTYÉN

HEIM PÁL NATIONAL PEDIATRIC INSTITUTE

TOPIC

Anesthesiology - Perioperative care

VISION

Old paradigms in perioperative patient care have to be changed.

MISSION

To provide high quality of evidence to support all of the above

SPECIFIC GOALS

PROJECT 1: The effects of preoperative carbohydrate loading on postoperative outcomes in patients undergoing elective major non-cardiac surgery: a systematic review and meta-analysis Project started: September 2021 PROJECT 2: Multimodal, individualised, goaldirected fluid therapy (miGDFT) in patients undergoing pancreatic surgery: protocol of a multicentre randomised trial Project started: October 2021

PROGRESS LEVEL Individual







AGE 35 years EDUCATION medical doctor SUPERVISOR(S) Zsolt Molnár, Máté Rottler E-MAIL szabogvilmos@gmail.com



GERGŐ VILMOS SZABÓ

SZENT GYÖRGY HOSPITAL, SZÉKESFEHÉRVÁR

торіс

Emergency medicine - Transfusiology

VISION

Provide the most appropriate care to all the patients treated in the acute phase.

MISSION

Demonstrate that scientific methods can be used to improve patient care.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: Point-of-care ultrasound improves clinical outcomes in patients with acute onset dyspnea: a systematic review and meta-analysis Project started: September 2021 PROJECT 2: Fluid resuscitation with balanced electrolyte solutions results in faster resolution of diabetic ketoacidosis than with 0.9% saline in adults: a systematic review and meta-analysis Project started: October 2021

PROGRESS LEVEL Excellence

PROJECT 1: Szabó, GV. et al. (2020) Point-of-care ultrasound improves clinical outcomes in patients with acute onset dyspnea: a systematic review and meta-analysis *Intern Emerg Med*, **Q2**, **IF**: 4.600



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Klára Horváth, Zsolt Molnár E-MAIL

ambrus.szemere@gmail.com

AMBRUS SZEMERE

SEMMELWEIS UNIVERSITY, SECOND DEPARTMENT OF PAEDIATRICS

TOPIC

Anesthesiology - Pediatrics

VISION

To improve the safety of the treatment of critically ill pediatric patients with universally implemented protocolized strategies in intensive care.

MISSION

TOPIC

VISION

MISSION

Anesthesiology - COVID-19

and safer interventions.

To contribute to international clinical guidelines of pediatric intensive therapy and implementing those in the institutes I will be working at.

SPECIFIC GOALS

PROJECT 1: Protocolized Sedation in the Pediatric Intensive Care Unit may Reduce Sedation Use, but not Ventilation Duration - a systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** The Disruption of Circadian Rhythm in the Pediatric Intensive Care Unit and its Relationship with Psychological Outcomes - a prospective longitudinal observational study Project started: November 2021

PROGRESS LEVEL Individual



AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Zsolt Molnár,

Zoltán Ruszkai E-MAIL szigetvary.csenge@gmail. com

CSENGE ERZSÉBET SZIGETVÁRY

Implementing personalized strategies in intensive care

To help disseminating scientific based medicine in

anesthesiology and intensive therapy.

medicine on a board scale, hence providing more effective

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ANAESTHESIOLOGY AND INTENSIVE THERAPY



SPECIFIC GOALS

PROJECT 1: Individualized positive end-expiratory pressure settings reduce the incidence of postoperative pulmonary complications:
 Systematic review and meta-analysis
 Project started: September 2021
 PROJECT 2: Acute Hypoxaemic Respiratory Failure Registry: Initiation of a registry
 Project started: October 2021

PROGRESS LEVEL Individual



AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Zsolt Molnár E-MAIL

c.caner.turan@gmail.com





AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Tamás Terebessy E-MAIL drvezermatyas@gmail.com

CANER TURAN

SEMMELWEIS UNIVERSITY, ALUMNI DIRECTORATE

TOPIC

Anesthesiology - Hepatology

VISION To be one of the first among many "scientist-physicians".

MISSION

To replace ,tradition' and ,habit' with scientific thinking.

SPECIFIC GOALS

PROJECT 1: The Effect of Preoperative Administration of Glucocorticoids on the Postoperative Complication Rate in Liver Surgery: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Hemoadsorption Therapy for Critically III Patients with Acute Liver Dysfunction: a systematic review and meta-analysis Project started: October 2021

PROGRESS LEVEL Individual

MÁTYÁS VEZÉR

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS

TOPIC

Orthopedics, traumatology - Pediatrics

VISION

Strengthen the faith that quality of life of children suffering from Cerebral palsy can be improved by novel rehabilitation methods.

MISSION

Clarify the indications and roles of innovative methods in the rehabilitation of children with cerebral palsy.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: The effect of robot-assited gait training on gross motor function in children with cerebral palsy: systematic review and meta-analysis

Project started: September 2021

PROJECT 2: The efficacy of video game-based therapy to improve upper limb function in children with cerebral palsy: systematic review and meta-analysis

Project started: October 2021

PROGRESS LEVEL Individual

PROJECT 1: Vezér, M. et al. (2023) Evidence for gait improvement with robotic-assisted gait training of children with cerebral palsy remains uncertain *Gait Posture*, **Q1**, **IF:** 2.400





GROUP 6 ORTHOPAEDICS & TRAUMATOLOGY



GROUP 6 ORTHOPEDICS & TRAUMATOLOGY

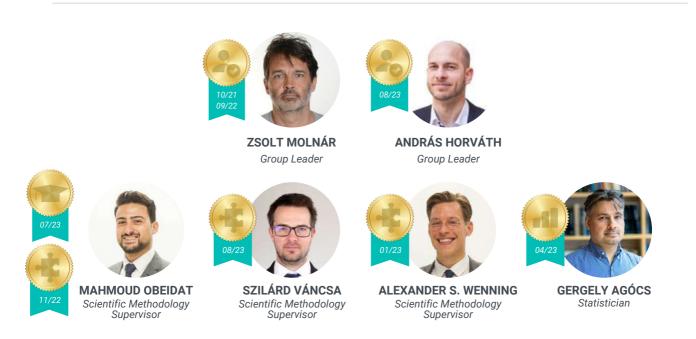
GROUP MEETINGS

MONDAY 4:30 PM - 6:30 PM

INTRODUCTION TO THE GROUP

The third year Orthopedics, traumatology group is part of the second-third-year Miscellaneous 1 group combining a broad spectrum of topics, including radiology, orthopedics, otolaryngology, neurology, and psychology/psychiatry, alongside cardiology, emergency medicine, and intensive therapy. The resulting blended group consists of 37 students, conducting a total of 81 projects. The students are guided by group leaders Zsolt Molnár, an intensivist, and András Horvath, an expert on neurocognitive disorders, aided by the many excellent supervisors responsible for individual students. The topics investigated range from cholesteatoma, over vital COVID-19 topics, to imaging in orthopedics, traumatology, cardiac disorders, neurology, or even psychiatry. Also, perioperative treatment, interventional cardiology, degenerative neurological disorders, and a range of orthopedic surgeries are being studied. In these very clinical fields, it is no wonder that the students are interested in conducting direct clinical investigations. As such, 27% of the projects chosen are clinical trials, registry analyses, or international surveys. The very productive students of this group have already published 12 of the projects in D1/Q1 journals, and a further 16 projects have been submitted for publication.

MEMBERS OF THE GROUP



STUDENTS: Robert de Jonge, Gyula Domos, Luca Hergár, Koppány Péter Kocsis, Krisztián Balázs Kovács, Miklós Máté, Bence Stubnya, Gyula Ferenc Szőcs, Csaba Varga, Viktor Weninger

SUPERVISORS: Zoltán Bejek, György Márk Hangody, László Hangody, Judit Réka Hetthéssy, Gergely Holnapy, György Kocsis, Károly Pap, Gergely Pánics, Gábor Skaliczki, Imre Szerb, György Szőke



AGE 29 years **EDUCATION** medical doctor SUPERVISOR(S) Gergely Pánics, László Hangody E-MAIL

dejongerobi@gmail.com

ROBERT DE JONGE

SEMMELWEIS UNIVERSITY, DEPARTMENT OF TRAUMATOLOGY

TOPIC

Orthopedics, traumatology - Knee surgery

VISION

Understand the nature of sports injuries. Provide better care and life quality for knee injured patients.

MISSION

Resolve disagreements and controversies of anterior cruciate ligament injury and therapy.

SPECIFIC GOALS

PROJECT 1: Non-operative Treatment is an Effective Option for Isolated Anterior Cruciate Ligament Injuries: a systematic review and metaanalysis

Project started: September 2021 PROJECT 2: Comparing the Outcomes of Reconstruction Alone and Combined with Anterolateral Extra-Articular Procedures in the Treatment of Anterior Cruciate Ligament Injury: a systematic review and network meta-analysis Project started: December 2021

PROGRESS LEVEL Individual



AGE 45 years **EDUCATION** medical doctor SUPERVISOR(S) György Szőke E-MAIL domosgy@gmail.com



SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS

Orthopedics, traumatology - Developmental hip dysplasia

VISION

TOPIC

To ensure the highest quality treatment for pediatric patients and to build one of the best pediatric orthopaedic centers in Europe.

MISSION

To introduce the best available treatment methods in every field of pediatric orthopaedics, to work out new treatment protocols

SPECIFIC GOALS

PROJECT 1: Identifying the risk factors of failure in the treatment of congenital hip dislocation a systematic review and meta-analysis Project started: September 2021

- 1. Closed reduction
- 2. Open reduction
- 3. Conservative treatment

PROJECT 2: The results of primary complex surgical treatment in congenital hip dislocation retrospective cohort analysis Project started: October 2021

PROGRESS LEVEL

Individual



AGE 27 years **EDUCATION** medical doctor SUPERVISOR(S) Judit Réka Hetthéssy E-MAIL luca.hergar@gmail.com



SEMMELWEIS UNIVERSITY. DEPARTMENT OF ORTHOPAEDICS

LUCA HFRGÁR

SPECIFIC GOALS

Orthopedics, traumatology - Diagnostic investigations of wrist and hand conditions

VISION

TOPIC

Adequate diagnosis at the first doctor-patient interaction.

MISSION

To evaluate the accuracy of diagnostic methods in hand surgery

PROJECT 2: Correlation of two-point discrimination and electroneurography in carpal tunnel syndrome: registry analysis Project started: April 2015

Project started: September 2021

PROJECT 1: Investigating the diagnostic accuracy

of magnetic resonance imaging for lesions around the wrist: a systematic review and meta-analysis

PROGRESS LEVEL Completed







AGE 38 years **EDUCATION** medical doctor SUPERVISOR(S) Károly Pap E-MAIL koppany.kocsis@gmail.com

KOPPÁNY PÉTER KOCSIS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF TRAUMATOLOGY

TOPIC

Orthopedics, traumatology - Diagnosis of ankle injuries

VISION

Faster and more accurate diagnosis for the ligament injured patients.

MISSION

Learn, overview the literature and get practise in MSK US.

SPECIFIC GOALS

PROJECT 1: Comparing the diagnostic accuracy of ultrasound and MRI assessing lateral ankle ligament injury: a systematic review and metaanalysis

Project started: September 2021 PROJECT 2: Comparing the diagnostic accuracy of ultrasound and MRI assessing medial collateral injury of the knee: cohort study Project planned start: March 2023

PROGRESS LEVEL

Individual



AGE 34 years EDUCATION medical doctor SUPERVISOR(S) György Kocsis **E-MAIL** dr.kovacs.ortop@gmail.com

KRISZTIÁN BALÁZS KOVÁCS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS

TOPIC

Orthopedics, traumatology - Young's modulus of the bone

VISION

Make brand-new custom-made implants and designs by updated understanding of bone behavior and linking it with everyday orthopedics service.

MISSION

As part of an orthopedics team, we are providing cutting edge orthopedic service, based on evidence-based medicine and research.

SPECIFIC GOALS

PROJECT 1: The impact of different factors influencing the accuracy of in vitro Young's moduli results: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Comparing the safety and efficacy of LockDown technique to other approaches in acromioclavicular instability: retrospective cohort study with systematic review Project started: October 2021

PROGRESS LEVEL Individual



AGE 30 years EDUCATION medical doctor SUPERVISOR(S) Gergely Pánics, László Hangody E-MAIL drmatemiklos@gmail.com

MIKIÓS MÁTÉ

SEMMELWEIS UNIVERSITY, DEPARTMENT OF TRAUMATOLOGY

TOPIC

Orthopedics, traumatology - Knee surgery

VISION

To bring along and also develop our center which is already well known for cartilage care and repairment.

MISSION

To help decision-making for daily practice, to have more clear picture about post traumatic osteoarthritis.

SPECIFIC GOALS

PROJECT 1: No Significant Difference in Signs of Osteoarthritis after Anterior Cruciate Ligament Injuries comparing Surgical and Conservative Treatment: a systematic review and meta-analysis Project started: September 2021 PROJECT 2: The Role of Anterior Cruciate Ligament Reconstruction in the Development of Osteoarthritis in Less Than 5 Years and After 10 Years. Retrospective X-ray follow-up study Project started: July 2022

PROGRESS LEVEL Individual





AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Zoltán Bajek E-MAIL bence@stubnya.hu



BENCE STUBNYA

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS

TOPIC

Orthopedics, traumatology - Knee surgery

VISION

My Vision is if I become a good knee surgeon, I will increase life quality via TKA.

MISSION

Our Mission is to find the most effective approach for TKA.

SPECIFIC GOALS

PROJECT 1: Comparison of the safety and efficacy of different surgical approaches in total knee arthroplasty: a systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** Comparison of the safety and efficacy of subvastus and medial parapatellar approaches in total knee arthroplasty: observational clinical trial

Project started: October 2021

PROGRESS LEVEL Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Stubnya, B. et al. (2023) Subvastus approach supporting fast-track total knee arthroplasty over the medial parapatellar approach: A systematic review and network meta-analysis *J Arthroplasty* , **D1**, **IF:** 4.435



Orthopedics, traumatology - Knee surgery VISION Decrease the number of total knee arthroplasties in Hungary.

TOPIC

MISSION

AGE 32 years EDUCATION medical doctor SUPERVISOR(S) György Márk Hangody E-MAIL szocs.gyulaferenc@gmail. com



SEMMELWEIS UNIVERSITY, DEPARTMENT OF TRAUMATOLOGY

SPECIFIC GOALS



PROJECT 1: Comparing the safety and efficacy of meniscal repair and meniscectomy during anterior cruciate ligament reconstruction: a systematic review and meta-analysis

Project started: September 2021

PROJECT 2: Investigating the safety and efficacy of intra-articular injections in the treatment of knee osteoarthritis: a systematic review and network meta-analysis

Project started: November 2021

PROGRESS LEVEL Individual



AGE 36 years EDUCATION medical doctor SUPERVISOR(S) Gergely Holnapy E-MAIL dr.vargacsaba001@gmail. com

CSABA VARGA

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS

TOPIC

Orthopedics, traumatology - Foot and ankle surgery

Increase the use of knee cartilage preserving practices.

VISION

A high-quality up to date professional foot surgery in Hungary.

MISSION

To avoid the unappropriate surgical interventions in foot surgery practice.

SPECIFIC GOALS

PROJECT 1: Obesity increases the odds of ankle prosthesis revision: a systematic review and metaanalysis Project started: October 2021 **PROJECT 2:** Comparison of operative techniques for the treatment of adult flatfoot in different

stages: a systematic review and meta-analysis Project started: September 2021

PROGRESS LEVEL

Accelerator



AGE 30 years EDUCATION medical doctor SUPERVISOR(S) Gábor Skaliczki E-MAIL weningerviktor@yahoo.com

VIKTOR WENINGER

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS

TOPIC

Orthopedics, traumatology - Shoulder surgery

VISION

Use fewer steroid injections in our practice and reduce the C. acnes culture with effective skin preparation.

MISSION

A fewer side effects in patients thanks to fewer steroids, and less frequent surgical site infection due to less C. acnes germ.

SPECIFIC GOALS

PROJECT 1: Hyaluronate and its combinations are superior to steroids in the injection therapy of Partial Rotator Cuff Tear: a systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** Peroxide skin preparation reduce the incidence of Cutibacterium acnes in skin around the shoulder joint : a systematic review and metaanalysis Project started: October 2001

Project started: October 2021

PROGRESS LEVEL Completed

GROUP 7 PEDIATRICS



INTRODUCTION TO THE GROUP



The third-year Pediatric group is part of the second-third-year Pediatrics group which is comprised of 22 students, evenly divided between their second and third years, and guided by 13 experienced supervisors. This diverse cohort includes 6 students in the Accelerator group and 16 pursuing their studies as Individual students. The group's research spectrum is vast, spanning pediatric oncology, gastroenterology, infectious diseases, pharmacology, conductive education, neonatology, and even forensic sciences. Collectively, they are engaged in 56 projects, encompassing systematic reviews, clinical trials, and registry analyses. Impressively, five of these projects have been published in top-tier D1/Q1 scientific journals, with numerous others currently undergoing review. The group is particularly active in clinical trial development and evaluation, with 8 projects dedicated to this area, alongside 13 projects focused on international surveys and registry analyses. The group benefits from the expertise of its Scientific Methodology Supervisors (SMSs), Rita Nagy, Mahmoud Obeidat, and Márk Hernádfői, who lend their extensive knowledge to support the diverse range of studies. Leadership is provided by Andrea Párniczky and Miklós Garami, both highly experienced within the Translational Medicine Program and recognized as leading experts in pediatric gastroenterology and oncology, respectively.

MEMBERS OF THE GROUP



STUDENTS: Dorina Rita Bajzát, Adrienn Krisztina Ferencsikné Kéri (Student of the month: September 2021), Réka Garai, Márk Viktor Hernádfői, Ágoston Jánosi, Dóra Kornélia Koch, Kinga Kovács, Adrienn Anna Lukács Péter Misnyovszki, Márk Pulay, Nóra Zimonyi

SUPERVISORS: Viktor Dombrádi, Éva Feketené Szabó, Andrea Ferencz, Péter Gaál, Miklós Garami, Ákos Gasparics (Supervisor of the month: March 2023), Mónika Horváth, Gábor Kovács, Péter Krivácsy, Boglárka Marcsa, Katalin Müller (Supervisor of the month: February 2023), Andrea Párniczky, Attila Szabó, Klára Törő, Ibolya Túri



AGE 27 years **EDUCATION** medical doctor SUPERVISOR(S) Katalin Müller E-MAIL bajzat.dorka96@gmail.com



DORINA RITA BAJ7ÁT

HEIM PÁL NATIONAL PEDIATRIC INSTITUTE

TOPIC

Pediatrics - Pediatric inflammatory bowel disease, Pediatric gastroenterology

VISION

Good timing and good methods of surgery elevate the quality of life of children with inflammatroy bowel disease.

MISSION

Assess the current situation of surgical interventions and improve the quality by communicating the results.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: Safety analysis of preoperative anti-TNF therapy in pediatric IBD after intestinal resection: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Intestinal resections in pediatric Crohn's disease: a nation-wide survey based on the Hungarian Pediatric IBD Registry Project started: November 2021

PROGRESS LEVEL

Individual

PROJECT 1: Bajzát, DR. et al. (2023) Safety Analysis of Preoperative Anti-TNF-a Therapy in Pediatric IBD After Intestinal Resection: A Systematic Review and Meta-analysis Inflammatory Bowel Diseases, Q1, IF: 4.900



AGE 30 years EDUCATION medical doctor SUPERVISOR(S) Andrea Párniczky E-MAIL adrikeri@gmail.com





AGE 31 years **EDUCATION** medical doctor SUPERVISOR(S) Attila Szabó, Péter Krivácsy E-MAIL garai.reka@ med.semmelweis-univ.hu

ADRIENN KRISZTINA FERENCSIKNÉ KÉRI

HEIM PÁL NATIONAL PEDIATRIC INSTITUTE

TOPIC

Pediatrics - Cystic fibrosis

VISION

To improve the life quality and extend the life expectancy of cystic fibrosis patients with better clinical assessment.

MISSION

To improve the clinical assessment of cystic fibrosis related glucose abnormalities by applying up to date scientific results .

SPECIFIC GOALS

PROJECT 1: Early onset of abnormal glucose tolerance in patients with cystic fibrosis: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Prevalence of abnormal glucose tolerance in children with cystic fibrosis: a single center prospective cohort analysis (Cystic Fibrosis Related Pancreatic Disorders Registry (CFRPDR)) Project started: October 2021

PROGRESS LEVEL Individual



RÉKA GARAI

TOPIC

Pediatrics - Long COVID syndrome, Pediatric Emergency

SEMMELWEIS UNIVERSITY, FIRST DEPARTMENT OF PAEDIATRICS

VISION To give KINDNESS, CARE, COMFORT.

MISSION

The fact and sensation of SAFETY is natural for our patients.

PUBLISHED ARTICLE(S)

PROJECT 1: Garai, R. et al. (2022) Clinical assessment of children with long COVID syndrome Pediatric Research, Q1, IF: 3.600

SPECIFIC GOALS

PROJECT 1: Clinical assessment of children with long Covid syndrome PROJECT 2: Thyroid disturbances after Covid-19 and the effect of vaccination in children: a prospective tri-center registry analysis

PROGRESS LEVEL Graduate







AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Miklós Garami E-MAIL hernadfoi.mark@gmail.com





AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Andrea Párniczky E-MAIL janosi.agoston@gmail.com

MÁRK VIKTOR HERNÁDFŐI

Pediatrics - Oncology and hematology

Improving survival and quality of life in pediatric oncology.

Define and improve the long-term socioeconomic effects

of cancer treatment and research new therapeutical

SEMMELWEIS UNIVERSITY, SECOND DEPARTMENT OF PAEDIATRICS



SPECIFIC GOALS

PROJECT 1: The Burden of Childhood Cancer – Social and Economic Challenges in Adulthood: a Systematic Review and Meta-Analysis Project started: September 2021

PROJECT 2: Efficacy and Side Effect Profile of Dinutuximab Beta Therapy in Hungarian Neuroblastoma Patients: a Registry-based Analysis Project started: May 2022

PROGRESS LEVEL

Accelerator

ÁGOSTON JÁNOSI

HEIM PÁL NATIONAL PEDIATRIC INSTITUTE

TOPIC Pediatrics - COVID-19

VISION

TOPIC

VISION

MISSION

approaches.

A World with established ground rules in fighting a pandemic.

MISSION

Acquiring a deeper understanding of research methods, hence increasing my knowledge in paediatric care.

SPECIFIC GOALS

PROJECT 1: Two-thirds of SARS CoV-2 infected school-age children are asymptomatic: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Investigating the effectiveness and safety of TNF-alpha inhibitors in COVID-19 therapy: a systematic review and meta-analysis Project started: September 2021

PROGRESS LEVEL

Individual



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Gábor Kovács E-MAIL dorakorneliakoch@gmail.com

DÓRA KORNÉLIA KOCH

SEMMELWEIS UNIVERSITY, SECOND DEPARTMENT OF PAEDIATRICS



TOPIC

Pediatrics - Oncology and hematology

VISION

Achive the best therapeutic response/effect with the lowest possible toxicity when using chemotherapeutic agents (e.g. pharmacokinetic modifications).

MISSION

Prevent severe toxicity of chemotherapeutics in pediatric malignancies.

SPECIFIC GOALS

PROJECT 1: Comparison of toxicity levels between bolus injection and continuous vincristine infusion in patients with malignancies: a systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** Comparison of pharmacokinetic parameters and toxicity levels between bolus

injection and continuous vincristine infusion in children with hematologic malignancies: Protocol and pilot of a prospective randomised trial Project started: October 2021

PROGRESS LEVEL

Individual



AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Ákos Gasparics E-MAIL kingakovacs3@gmail.com

KINGA KOVÁCS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY



Pediatrics - Neonatology

VISION

TOPIC

The focus in neonatal care should be on eliminating as many complications of prematurity as possible.

MISSION

TOPIC

VISION

information.

MISSION

children.

Investigating antenatal, perinatal and postnatal risk factors.

SPECIFIC GOALS

PROJECT 1: The prognostic role of concomitant histopathologic fetal inflammatory response with chorioamnionitis in adverse outcomes of preterm neonates: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** The intrauterine rute of inflammation: Distribution along the umbilical cord: cohort analvsis Project started: September 2022

PROGRESS LEVEL Completed



AGE 26 years **EDUCATION** physiotherapist SUPERVISOR(S) Mónika Horváth E-MAIL lukacsadriennanna@gmail.com

ADRIENN ANNA LUKÁCS

Pediatrics - Physiotherapy

SEMMELWEIS UNIVERSITY, FACULTY OF HEALTH SCIENCES



Providing profession specific, relevant, scientific

To improve pediatric physiotherapeutic care among MIS-C



PROJECT 1: Evaluation of the prevalence and characteristics of cardiovascular abnormalities in COVID-19 associated Multisystem Inflammatory Syndrome in Children (MIS-C): A systematic review and meta-analysis

Project started: September 2021 **PROJECT 2:** Assessment of Hungarian children with Multisystem Inflammatory Syndrome in Children (MIS-C): Registry analysis Project started: October 2021

PROGRESS LEVEL Individual



AGE 31 years **EDUCATION** medical doctor SUPERVISOR(S) Klára Törő, Boglárka Marcsa E-MAIL misnyovszki.peter@ med.semmelweis-univ.hu

PÉTER MISNYOVSZKI

SEMMELWEIS UNIVERSITY. DEPARTMENT OF FORENSIC MEDICINE

TOPIC

Forensic radiology

VISION

A new, clear methodology on post-mortem evaluation including novel techniques will be established.

MISSION

Propagate the use of modern post-mortem techniques.

SPECIFIC GOALS

PROJECT 1: Autopsy or virtopsy: the future of postmortem analysis, a systematic review and metaanalysis Project started: September 2021 PROJECT 2: Forecasting by weather : a registry analysis of environmental parameters associated with suicidal death Project started: October 2021

PROGRESS LEVEL

Accelerator



AGE 36 years EDUCATION conductor SUPERVISOR(S) Éva Feketené Szabó, Ibolya Túri E-MAIL markpulay@gmail.com

MÁRK PULAY

SEMMELWEIS UNIVERSITY, ANDRÁS PETŐ PRACTICE PRIMARY SCHOOL



TOPIC

Pediatrics - Cerebral palsy

VISION

Pető method contributes to better quality of life of patients with CP.

MISSION

Find and implement new, cutting edge technologies and additional therapies which fit to the holistical approach of the Pető Method.

SPECIFIC GOALS

PROJECT 1: Investigating the effects of additional whole body vibration in patients with cerebral palsy Project started: September 2021 **PROJECT 2:** Feasibility of using pulsed electromagnetic field therapy to improve the

dynamic postural balance of children with cerebral palsy: A randomized, sham-controlled pilot study Project started: October 2021

PROGRESS LEVEL Individual



AGE 37 years EDUCATION conductor SUPERVISOR(S)

Péter Gaál, Ibolya Túri, Viktor Dombrádi

E-MAIL zimonyi.nora@semmelweisuniv.hu

NÓRA ZIMONYI

SEMMELWEIS UNIVERSITY, ANDRÁS PETŐ PRACTICE PRIMARY SCHOOL

TOPIC

Pediatrics - Cerebral palsy

VISION

Living in a world in which citizens with CP are a productive and integral part of society.

MISSION

Fully committed to creating a more targeted developmental program for CP patients.

SPECIFIC GOALS

PROJECT 1: Executive functions are severely impaired in cerebral palsy: a systematic review and meta-analysis Project started: September 2021 **PROJECT 2:** Comparison of executive function test results between children with cerebral palsy (CP) and typically developing children: clinical trial.

PROGRESS LEVEL Individual

GROUP 8 GASTROENTEROLOGY & ENDOCRINOLOGY

GROUP 8 GASTROENTEROLOGY & ENDOCRINOLOGY

GROUP MEETINGS TUESDAY, 4:30 PM - 6:00 PM

INTRODUCTION TO THE GROUP



The third-year Gastroenterology is part of the second-third-year Gastroenterology, which group consists of 24 Ph.D. students, having three specialists, 11 resident doctors, five full-time Ph.D. researchers, three dieticians, one psychologist, and one biologist. They research various topics in the field of gastroenterology, tackling gastroesophageal reflux, acute and chronic pancreatitis, pancreatic cancer, diabetes mellitus, gastrointestinal bleeding and – endoscopy, chronic liver diseases, Clostridium difficile infection, gut microbiota, inflammatory bowel diseases, microscopic colitis, and colorectal cancer; having a special focus on psychological, radiological, and surgical aspects of these diseases as well. Among them one student has a completed status, one has excellence, 13 of them are accelerators, and nine students are grouped as individuals. The work of this diverse group is led and facilitated by Bálint Erőss and Krisztina Hagymási, experts in the field of gastroenterology, with the aid and joint work of many great other supervisors, and the help of the scientific methodology supervisors of Anett Rancz, Eszter Szalai and Mahmoud Obeidat.

MEMBERS OF THE GROUP



STUDENTS: Sára Bognár, Anna Júlia Éliás, Marie Anne Engh, Adrienn Nikolett Kovács, Mahmoud Obeidat, Anna Noémi Németh, Dániel Pálinkás, Anett Rancz, Olga Julia Zahariev

SUPERVISORS: László Földvári-Nagy, Bálint Erőss, Nóra Hosszúfalusi, Péter Hegyi, Márk Félix Juhász, Katalin Földváriné Lenti (Supervisor of the month: August 2023), Katalin Márta, Emese Mihály (Supervisor of the month: May 2023)



AGE 33 years EDUCATION psychologist SUPERVISOR(S) Péter Hegyi, Katalin Márta E-MAIL bognar.sara@gmail.com



AGE 28 years EDUCATION dietetian SUPERVISOR(S) Katalin Földváriné Lenti, László Földvári-Nagy E-MAIL elias.anna.julia@gmail.com



SÁRA BOGNÁR

SEMMELWEIS UNIVERSITY, CENTRE FOR PANCREATIC DISEASES

TOPIC

Gastroenterology - Psychoterapy

VISION

Cancer patients receive personalized psychological support which will increase their quality of life.

MISSION

TOPIC

VISION

MISSION

I am committed to implement psychological support in the standard of care from the time of the diagnosis until the end of treatment irrespectively of the outcome of the disease.

SPECIFIC GOALS

PROJECT 1: Investigating the effect of psychological interventions on quality of life and survival in patients with cancer: a systematic review and meta-analysis of RCTs Project started: September 2021 PROJECT 2: Investigating the degree of psychological burden of patients with pancreatic cancer: a systematic review and meta-analysis Project started: October 2021

PROGRESS LEVEL Individual

ANNA JÚLIA ÉLIÁS

Gastroenterology - Probiotics

recommendations, personalised medicine.

and disease, consequences of treatments.

SEMMELWEIS UNIVERSITY, FACULTY OF HEALTH SCIENCES

Probiotics - Specification of evidence-based and applicable

Understand the role of the human gut microbiome in health



SPECIFIC GOALS

PROJECT 1: Probiotic Supplementation During Antibiotic Treatment is Unjustified in Maintaining the Gut Microbiome Diversity- a systematic review and meta-analysis

Project started: September 2021

PROJECT 2: Effects of probiotic supplementation on gut microbiome diversity and composition in healthy population - a systematic review and meta-analysis

Project started: October 2021

PROGRESS LEVEL

Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Éliás, AJ. et al. (2023) Probiotic supplementation during antibiotic treatment is unjustified in maintaining the gut microbiome diversity: a systematic review and meta-analysis *BMC Med*, **D1**, **IF:** 11.150



AGE 29 years EDUCATION medical doctor SUPERVISOR(S) Bálint Erőss E-MAIL marieaengh@gmail.com



MARIE ANNE ENGH

better outcomes for the patients.

diagnostics of pancreatic cancer.

TOPIC

cancer

VISION

MISSION

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE

Gastroenterology - Diagnostic methods in pancreatic

Improved diagnostics of pancreatic cancer that lead to

Contribute to clearer guidelines for more efficient

SPECIFIC GOALS

PROJECT 1: Diagnostic adequacy of different needle designs for endoscopic ultrasound guided tissue acquisition of solid pancreatic masses: A systematic review and network meta-analysis Project started: September 2021 PROJECT 2: Contrast-enhanced EUS likely doesn't increase diagnostic adequacy during tissue acquisition from solid pancreatic masses: A systematic review and meta-analysis Project started: October 2021

PROGRESS LEVEL

Individual



AGE 30 years EDUCATION medical doctor SUPERVISOR(S) Nóra Hosszúfalusi E-MAIL kov.adri15@gmail.com



AGE 27 years EDUCATION medical doctor SUPERVISOR(S) Bálint Erőss E-MAIL

obeidat.mahmoud96@ gmail.com





AGE 36 years EDUCATION medical doctor SUPERVISOR(S) Bálint Erőss E-MAIL dr.d.palinkas@gmail.com

ADRIENN NIKOLETT KOVÁCS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF INTERNAL MEDICINE AND HAEMATOLOGY

TOPIC

Gastroenterology - Diabetes mellitus

VISION

Decrease unnecessary insulin administration in ketosis-prone type 2 diabetes mellitus.

MISSION

Increase awareness about ketosis-prone type 2 diabetes and improve its management.

PUBLISHED ARTICLE(S)

SPECIFIC GOALS

PROJECT 1: Prevalence and clinical characteristics of ketosis-prone type 2 diabetes among patients with diabetic ketoacidosis: meta-analysis
Project started: September 2021
PROJECT 2: Long-term follow-up of Hungarian patients with new-onset diabetic ketoacidosis: cohort analysis
Project started: October 2021

PROGRESS LEVEL

Individual

PROJECT 1: Kovács, AA. (2023) One third of cases of new-onset diabetic ketosis in adults are associated with ketosis-prone type 2 diabetes-A systematic review and meta-analysis *Diabetes Metab Res Rev*, **D1**, **IF:** 8.000

MAHMOUD OBEIDAT

UNVERSITY OF PÉCS, INSTITUTE FOR TRANSLATIONAL MEDICINE

TOPIC

Gastroenterology - Gastrointestinal bleeding

VISION

Improve the care and outcomes for gastrointestinal bleeding patients (guideline-based treatment).

MISSION

To investigate the proportion and pre-endoscopic assessment of hemodynamically unstable GIB patients and the efficacy of early nutrition after UGIB.

SPECIFIC GOALS

PROJECT 1: One in Four Patients with Gastrointestinal Bleeding Develops Shock or Hemodynamic Instability: Systematic Review and Meta-Analysis
Project Started: September 2021
PROJECT 2: Pre-endoscopic Assessment and Management of Upper Gastrointestinal Bleeding: International Survey
Project Started: April 2022

PROGRESS LEVEL

Completed

PUBLISHED ARTICLE(S)

PROJECT 1: Obeidat, M. (2023) One in four patients with gastrointestinal bleeding develops shock or hemodynamic instability: A systematic review and meta-analysis *World J Gastroenterol*, **Q1**, **IF:** 4.300

DÁNIEL PÁLINKÁS

HUNGARIAN ARMY MEDICAL CENTRE, DEPARTMENT OF GASTROENTEROLOGY



Gastroenterology - Gastrointestinal bleeding

VISION

TOPIC

Improve the management of gastrointestinal bleeding patients.

MISSION

Find the best way of anticoagulation resumption after GIB.

SPECIFIC GOALS

PROJECT 1: No association between gastrointestinal rebleeding and DOAC therapy resumption: a systematic review and meta-analysis Project started: September 2021 Published: 14th February 2023

PROJECT 2: Consequences of restarting anticoagulation after GIB: cohort analysis Project started: December 2022

PROGRESS LEVEL

Individual

PUBLISHED ARTICLE(S)

PROJECT 1: Pálinkás, D. et al. (2023) No Association between Gastrointestinal Rebleeding and DOAC Therapy Resumption: A Systematic Review and Meta-Analysis *Biomedicines*, **Q1**, **IF:** 4.700





RANSLATIONAL MEDICI



AGE 28 years EDUCATION medical doctor SUPERVISOR(S) Emese Mihály E-MAIL

ranczanett@gmail.com





AGE 29 years EDUCATION dietetian SUPERVISOR(S) Péter Hegyi, Márk Félix Juhász E-MAIL olga.zahariev@gmail.com

ANETT RANCZ

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE

TOPIC

Gastroenterology - Microscopic colitis

VISION

Vigilant physicians who educate patients to prevent the development of the disease – microscopic colitis.

MISSION

Provide professional knowledge to the physicians about the clinically relevant risk factors for microscopic colitis.

PUBLISHED ARTICLE(S)S

PROJECT 1: Rancz, A. et al. (2023) Microscopic colitis is a risk factor for low bone density: a systematic review and meta-analysis *Therap Adv Gastroenterol*, **Q1**, **IF:** 4.802

OLGA JULIA ZAHARIEV

SEMMELWEIS UNIVERSITY, CENTRE FOR PANCREATIC DISEASES

TOPIC

Gastroenterology - Diabetes mellitus

VISION

A world where preventable diabetes mellitus is prevented.

MISSION

Shift health policy towards prevention and educate patients.

SPECIFIC GOALS

PROJECT 1: Identifying patients at risk of developing diabetes after acute pancreatitis: a prognostic meta-analysis
Project started: September 2021
PROJECT 2: The EFFect Of dietary fat content on the Recurrence of pancreaTitis (EFFORT): multicenter randomised controlled trial
Project involvement started: September 2021

PROGRESS LEVEL Individual

SPECIFIC GOALS

PROJECT 1: Microscopic colitis is a risk factor for low bone density: a systematic review and metaanalysis Project started: September 2021

PROJECT 2: Risk factors for microscopic colitis: a systematic review and meta-analysis Project started: October 2021

PROGRESS LEVEL Excellence









FREE TIME ACTIVITIES



As one of our goals to create a great work environment we have been organizing multiple events to gather the medical staff together outside of work. Firstly, social clubs are continuously being organized and past events are including Halloween parties where staff members were able to bring their guests and enjoy a costume party. During this event finger food and drinks were provided to make the party more joyful as well as to help create a spooky theme.

To stick with costume parties, we also have been organizing a Gatsby event where the CTM members were able to attend the party of a lifetime, "Party Like Gatsby". This throwback party took place in the Cactus Juice Bar, where the dress code was strictly from the mid-1920s to create an accurate environment of that age. Other social club events included gatherings that took place at "The Grund", more specifically as our centre has reached the end of the 3rd Progress Report staff members were invited to celebrate the success of the CTM over some drinks and snacks. Another popular event that has been organized was the annual Christmas party where staff members along with their partners were welcomed to attend and celebrate a wonderful holiday together along with the always nicely provided food and drinks. This event also served as an opportunity to clink their glasses for the 4 month anniversary of the Central of Translational Medicine.











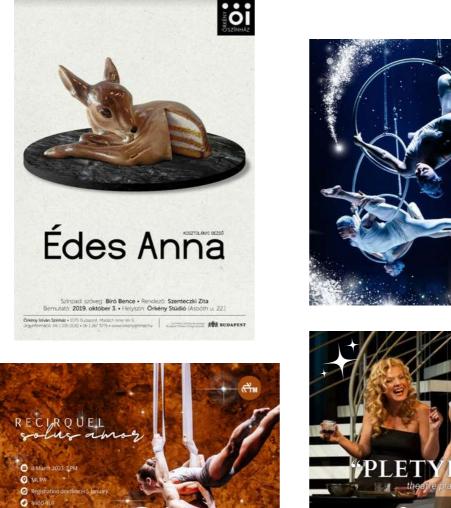








This club is purposely made to hold a more cultural base for gathering opportunities. The focus of these events is to bring the staff members closer by organizing other events. The Opera House has always provided a great opportunity for the members to enjoy each other's company alongside a great show. Just like opera theatre has been also another place for the CTM members to gather together and enjoy more cultural activities.

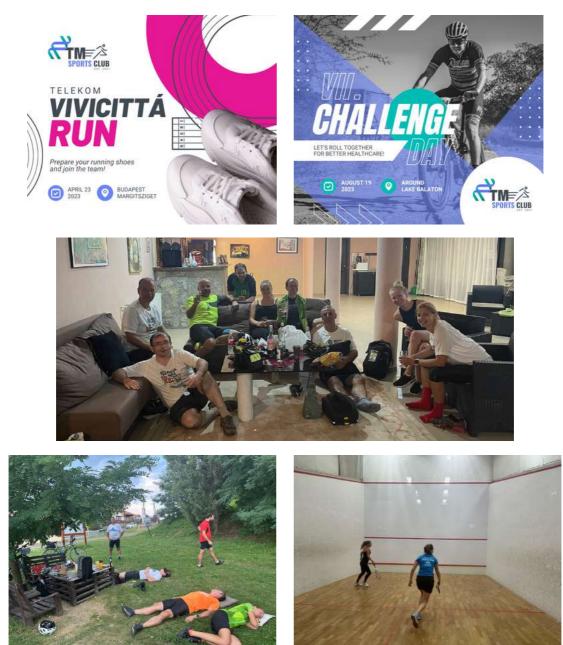








As healthcare professionals, we also like to organize activities such as running together where always plan out a route before the meet customized for the preference of our members allowing them either run together or have different groups following their own pace. Another great bonding activity is going on hikes together. It is something that has been mostly enjoyed by our staff who get to attend a hike in a new area at every event.



DEFENDED PHD STUDENTS

5

Following the launch of TM in Hungary in 2016, **37 PhD thesis** was carried out with the interdisciplinary support of CTM.

Among them, those who participated in our hybrid in-house training were labelled "inside", while those who participated in a sub-project facilitated by our centre were labelled "outside". We congratulate them on their excellent performance.

To see the dissertation of our students, **scan the QR code** beside their names.

1	KATALIN MÁRTA University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2019 22	 D1: 0 Q1: 20 Q2: 2 Q3: 0 Q4: 0 	Comulative IF: 64,066 First author IF: 12,32	
2	ADRIENN ERŐS University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2020 10	D1: 0 Q1: 7 Q2: 3 Q3: 0 Q4: 0	Comulative IF: 28,362 First author IF: 11,204	
3	ZSOLT SZAKÁCS University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2021 48	D1: 3 Q1: 29 Q2: 11 Q3: 4 Q4: 0	Comulative IF: 160,303 First author IF: 37,102	
4	DÁNIEL PÉCSI University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2021 32	D1: 0 Q1: 22 Q2: 6 Q3: 1 Q4: 0	Comulative IF: 97,146 First author IF: 16,324	
5	PÉTER VARJÚ University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2022 20	D1: 1 Q1: 15 Q2: 2 Q3: 2 Q4: 0	Comulative IF: 61,477 First author IF: 9,909	
6	PATRIK KÉRINGE University: Type of PhD: Date of dissertation: No. of articles:	R University of Pécs inside 2022 9	D1: 1 Q1: 5 Q2: 1 Q3: 0 Q4: 0	Comulative IF: 42,869 First author IF: 8,69	

7	KLEMENTINA OC University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside	D1: 6 Q1: 15 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 106,091 First author IF: 25,164	
8	ORSOLYA HUSZÁ University: Type of PhD: Date of dissertation: No. of articles:	Semmelweis University outside	D1: 1 Q1: 4 Q2: 0 Q3: 1 Q4: 1	Comulative IF: 21,459 First author IF: 4,39	
9	ÁGNES LILLA SZI University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside	D1: 1 Q1: 4 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 26,482 First author IF: 3,411	
10	PÉTER KUPÓ University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs outside 2021 12	D1: 0 Q1: 3 Q2: 5 Q3: 0 Q4: 4	Comulative IF: 19,302 First author IF: 8,4	
11	ANNA FÁBIÁN University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside 2021 34	D1: 0 Q1: 16 Q2: 6 Q3: 2 Q4: 8	Comulative IF: 88,759 First author IF: 17,294	
12	BÁLINT TRIMMEI University: Type of PhD: Date of dissertation: No. of articles:	Semmelweis University outside	D1: 1 Q1: 3 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 20,354 First author IF: 9,6	
13	ANIKÓ NAGY University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside 2021 8	D1: 1 Q1: 3 Q2: 3 Q3: 1 Q4: 0	Comulative IF: 11,385 First author IF: 3,799	

14	ADRIENN HALÁS University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside	D1: 0 Q1: 7 Q2: 6 Q3: 0 Q4: 0	Comulative IF: 38,862 First author IF: 3,57	
15	ALEXANDRA BÁL University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs outside	D1: 2 Q1: 4 Q2: 4 Q3: 0 Q4: 0	Comulative IF: 29,444 First author IF: 13,154	
16	ALEXANDRA DEW University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside	D1: 0 Q1: 6 Q2: 1 Q3: 0 Q4: 0	Comulative IF: 24,267 First author IF: 10,828	
17	SZILÁRD GÓDI University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs outside 2021 20	D1: 0 Q1: 12 Q2: 6 Q3: 2 Q4: 0	Comulative IF: 52,075 First author IF: 2,063	
18	SANG-NGOEN TH University: Type of PhD: Date of dissertation: No. of articles:	Semmelweis University outside	 D1: 0 Q1: 3 Q2: 2 Q3: 0 Q4: 1 	Comulative IF: 20,001 First author IF: 5,811	
19	SADAENG WUTT University: Type of PhD: Date of dissertation: No. of articles:	Semmelweis University outside	D1: 0 Q1: 3 Q2: 1 Q3: 0 Q4: 0	Comulative IF: 16,393 First author IF: 3,116	
20	BÁLINT ERŐSS University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs outside 2020 70	D1: 3 Q1: 15 Q2: 11 Q3: 0 Q4: 0	Comulative IF: 100,529 First author IF: 6,389	

21	DÓRA MOSZTBA University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside	D1: 0 Q1: 11 Q2: 3 Q3: 0 Q4: 0	Comulative IF: 45,799 First author IF: 14,556	
22	JUDIT BAJOR University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs outside 2020 183	D1: 0 Q1: 18 Q2: 11 Q3: 4 Q4: 1	Comulative IF: 102,787 First author IF: 7,244	
23	ROLAND HÁGENE University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside	D1: 0 Q1: 7 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 29,546 First author IF: 6,969	
24	ESZTER GARAMI University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside	D1: 0 Q1: 12 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 59,865 First author IF: 11,011	
25	EMŐKE PÓTÓNÉ University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs outside	D1: 0 Q1: 6 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 37,435 First author IF: 14,886	
26	ZSÓFIA GABRIEL University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside	D1: 1 Q1: 1 Q2: 0 Q3: 2 Q4: 0	Comulative IF: 16,808 First author IF: 12,26	
27	DÓRA DOHOS University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2023 14	D1: 1 Q1: 8 Q2: 2 Q3: 1 Q4: 0	Comulative IF: 47,928 First author IF: 19,978	

28	MÁRK FÉLIX JUH University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside	D1: 3 Q1: 13 Q2: 1 Q3: 0 Q4: 0	Comulative IF: 66,707 First author IF: 14,777	
29	ABA TAMÁS LŐR University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside	D1: 0 Q1: 1 Q2: 5 Q3: 1 Q4: 0	Comulative IF: 17,799 First author IF: 8,61	
30	RITA NAGY University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2023 15	D1: 9 Q1: 6 Q2: 0 Q3: 0 Q4: 0	Comulative IF: 132,0 First author IF: 23,0	
31	LAJOS SZAKÓ University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2023 9	D1: 0 Q1: 9 Q2: 0 Q3: 0 Q4: 0	Comulative IF: 30,297 First author IF: 7.973	
32	SZILÁRD VÁNCSA University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside	D1: 13 Q1: 29 Q2: 3 Q3: 0 Q4: 1	Comulative IF: 257,651 First author IF: 31,269	
33	NOÉMI ZÁDORI University: Type of PhD: Date of dissertation: No. of articles:	University of Pécs inside 2023 20	D1: 2 Q1: 15 Q2: 3 Q3: 0 Q4: 2	Comulative IF: 16,808 First author IF: 12,26	
34	ÁGNES RITA MAR University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged inside	D1: 2 Q1: 2 Q2: 2 Q3: 2 Q4: 0	Comulative IF: 25,409 First author IF: 8,76	

35		University of Szeged inside	D1: 2 Q1: 3 Q2: 0 Q3: 0 Q4: 0	Comulative IF: 22,265 First author IF: 8,003	
36	SZABOLCS KISS University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged inside 2023 52	D1: 17 Q1: 28 Q2: 7 Q3: 0 Q4: 0	Comulative IF: 252,571 First author IF: 20,765	
37	MÁRIA FÖLDI University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged inside 2023 14	D1: 8 Q1: 4 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 71,513 First author IF: 25,641	



The SU CTM aims to introduce PhD students to some of the world's most outstanding researchers, physician-scientists, pharmaceutical company executives, their carrer, scientific work, discoveries and thinking of science.

The Seminar Lecturers are invited in close collaboration with the National Biomedical Foundation which runs one of Europe's most prominent undergraduate scientist education program.

The program is to support talented young people interested in biomedical research and to foster their scientific work.

The secondary school part of the program trains more than 1000 high school students nationwide. The university training program is attended by students who go to the university and carry out their scientific research work in one of the cities of the country with higher education in the sciences, such as Budapest, Pécs, Szeged or Debrecen.

The following distinguished scientists have already held a seminar or will hold one this year.



OLE HOLGER PETERSEN

Professor, Cardiff School of Biosciences, Cardiff University, Wales, UK

TITLE OF THE LECTURE

Science, Scientific Publishing and Scientific Advice for Policy: 50 years of personal experiences

DATE OF THE LECTURE

December 9 (Thursday), 2021 December 15 (Wednesday), 2023

ABOUT THE LECTURER

Ole Holger Petersen CBE, FMedSci, FRS (born 3 March 1943) is a research professor at Cardiff University where he studies physiology, especially calcium signalling and the pancreas. Prior to this he was Symers Professor of Physiology at the University of Dundee, and then George Holt Professor of Physiology at the University of Liverpool.

Petersen was elected a member of the Academia Europaea in 1988. He was elected a Fellow of the Royal Society (FRS) in 2000 "for his major contributions to the understanding of the cell physiology of calcium signalling", and appointed a Commander of the Order of the British Empire (CBE) in the 2008 New Year Honours, "for services to Science". He is also a Fellow of the Academy of Medical Sciences.

He was the very first in the world to use the patch clamp technique on epithelial cells. Notably, his research decisively accelerated the spread of the patch clamp technique, for which Erwin Neher and Bert Sakmann were awarded the Nobel Prize in 1993.



PETER DOHERTY

Nobel Prize Laureate Veterinarian & immunologist Peter Doherty Institute at the University of Melbourne, AU

TITLE OF THE LECTURE Sensing and dealing with threats

DATE OF THE LECTURE April 7 (Thursday), 2022, online

ABOUT THE LECTURER

Peter C. Doherty was born in Brisbane, Australia in 1940. At the age of 17 he applied to the University of Queensland to study veterinary medicine. He graduated with a BSc in 1962 and a MSc degree in 1966, while also completing the rural veterinary and laboratory internships required by the State Department of Agriculture. He then applied for a post at the Moredun Research Institute in Edinburgh and obtained a PhD from the University of Edinburgh in 1970.

Doherty returned to Australia in December 1971 to the Australian National University in Canberra, where he was offered a research post. He "first studied Semliki Forest virus infection in mice, then moved on to lymphocytic choriomeningitis virus (LCMV), which was more suitable for immunoassays. In 1973, he met Rolf Zinkernagel and they started a joint program to study how the immune system's ,killer cells', the T cells, recognize which virusinfected cells to destroy. The discovery soon found practical applications in transplantation, vaccine development, autoimmune disease research and the development of anti-infective drugs.



TIM HUNT Nobel Prize Laureate biochemist and molecular physiologist

TITLE OF THE LECTURE Some lessons from a life in science

DATE OF THE LECTURE April 9 (Saturday), 2021, online

ABOUT THE LECTURER

Tim Hunt is a biochemist. With Lee Hartwell and Paul Nurse he shared in the Nobel Prize in Physiology or Medicine in 2001 "for their discoveries of key regulators of the cell cycle". Tim's contribution was the discovery of cyclins, proteins that are crucial for mitosis and other cell cycle transitions. Tim's earlier work focused on the control of haemoglobin synthesis in red blood cells.

Amongst other things, he discovered that double-stranded RNA (normally only found in virus-infected cells) was a powerful inhibitor of protein synthesis and, together with colleagues in the Department of Biochemistry at the University of Cambridge, figured out the mechanism — a protein kinase that phosphorylated an initiation factor. This led Tim to study protein synthesis in clams, sea urchins and eventually frog eggs, which revealed the abrupt disappearance of cyclins in dividing cells from yeast to man. In the end, it turned out that cyclins bind to and activate the enzymes that had been identified by Lee and Paul, the cyclin-dependent kinases (CDKs).



AARON CIECHANOVER

Nobel Prize Laureate Israeli biologist

TITLE OF THE LECTURE

The road for cure of a disease necessitates solving major bioethical problems: lessons learnt from the COVID-19 pandemic

DATE OF THE LECTURE April 5 (Tuesday), 2022

ABOUT THE LECTURER

Aaron Ciechanover was born in Haifa in 1947. He received his M.Sc. (1971) and M.D. (1973) from the Hebrew University in Jerusalem. After completing his national service (1973-1976) as military physician, he continued his studies to obtain a doctorate in biological sciences in the Faculty of Medicine in the Technion (1982). There, as a graduate student with Dr. Avram Hershko and in collaboration with Dr. Irwin A. Rose from the Fox Chase Cancer Centre in Philadelphia, USA, they discovered that covalent attachment of ubiquitin to a target protein signals it for degradation. In 2004 they received the Nobel Prize in Chemistry for characterizing the method that cells use to degrade and recycle proteins using ubiquitin.

He is currently a Distinguished Research Professor in the Faculty of medicine at the Technion – Israel Institute of Technology in Haifa, Israel. Aaron Ciechanover won the Nobel Prize shared with Dr. Avram Hershko and Dr. Irwin A. Rose in Chemistry in 2004 for characterizing the method that cells use to degrade and recycle proteins using ubiquitin.



KURT WÜTHRICH

Swiss Nobel Prize Laureate chemist/biophysicist

TITLE OF THE LECTURE The Molecules of Life: DNA, RNA, Proteins – History Placed in Perspective

DATE OF THE LECTURE

April 5 (Tuesday), 2022, online

ABOUT THE LECTURER

He was born in Aarberg and studied chemistry, physics, and mathematics at the University of Bern before pursuing his PhD at the University of Basel in 1964. During his graduate studies, Kurt Wüthrich started out working with electron paramagnetic resonance spectroscopy.

As a postdoc he began working with the newly developed and related technique of nuclear magnetic resonance spectroscopy to study the hydration of metal complexes. When he joined the Bell Labs, he started studying the structure and dynamics of proteins. After he returned to Zürich, collaborating with his colleagues, they developed the first two-dimensional NMR experiments, and established the Nuclear Overhauser effect as a convenient way of measuring distances within proteins.

In 2002 Kurt Wüthrich received half of the Nobel Prize in Chemistry for his development of nuclear magnetic resonance spectroscopy for determining the three-dimensional structure of biological macromolecules in solution.



ERWIN NEHER

German Nobel Prize Laureate biophysicist

TITLE OF THE LECTURE

Dynamic Priming of Synaptic Vesicles: Consequences for Shortterm Plasticity and Heterogeneity among Synapses

DATE OF THE LECTURE April 6 (Tuesday), 2022

ABOUT THE LECTURER

Erwin Neher was born in Landsberg am Lech in 1944. He enrolled at the Munich Technical College in 1963, majoring in physics. After obtaining a BSc degree, he went to the University of Wisconsin on a Fulbright scholarship. In 1967, he returned to Munich, where he began research on the synapses of nerve cells and the ionic currents in their membranes at the Max Planck Institute of Psychiatry. There he met Bert Sakmann, a PhD student working on a similar topic. After obtaining his doctorate, he continued his work at the Max Planck Institute in Göttingen with Bert Sakmann from 1973. Together, they began to develop a technique to measure the function of a single ion channel in a cell; the result of their work, the patch clamp method, was finally published in 1976.

After 1983, his interest turned from ion channels to the inside of the cell, and he investigated cellular responses to nerve stimuli such as hormone secretion and neurotransmitter secretion. In 1991 Erwin Neher and Bert Sakmann won the Nobel Prize for Medicine, for discovering the function of ion channels in cells and for the development of the patch clamp measurement technique.



JEAN-LOUIS VINCENT

MD, Phd, Professor of intensive care and intensivist from Brussels, Belgium

TITLE OF THE LECTURE Why I love intensive care medicine

DATE OF THE LECTURE February 24 (Thursday), 2022

ABOUT THE LECTURER

Professor Jean-Louis Vincent is currently Professor of intensive care medicine at the Université Libre de Bruxelles and intensivist in the Department of Intensive Care at Erasme University Hospital in Brussels, Belgium.

He is a Past-President of the World Federation of Societies of Intensive and Critical Care Medicine (WFSICCM), the European Society of Intensive Care Medicine (ESICM), the European Shock Society (ESS), the Belgian Society of Intensive Care Medicine (SIZ), and the International Sepsis Forum (ISF). He is a member of the Belgian Royal Academy of Medicine and was made a Baron by the King of Belgium. He also received numerous international awards.

He has signed over 1000 peer-reviewed articles, 400 book chapters and 1000 abstracts. He has edited more than 112 books, and is the editor-in-chief of Critical Care, Current Opinion in Critical Care, and ICU Management & Practice. His name appears more than 1300 times in Pubmed, and his work has been cited more than 240,000 times; his H-index is 192.



GÁBOR ORBÁN

Chairman of the Foundation for National Health Care and Medical Education & CEO of Gedeon Richter Plc.

TITLE OF THE LECTURE

Career model of a successul person

DATE OF THE LECTURE March 17 (Thursday), 2022

ABOUT THE LECTURER

Appointed Chief Executive Officer of Gedeon Richter Plc. from November 2017. He is the Chairman of the Foundation for National Health Care and Medical Education (Semmelweis University) from August 2021.

Began his professional career as an economist for the National Bank of Hungary and the European Central Bank. He later joined Aegon Asset Management where he worked as a fund manager and the head of the fixed income desk. He served as the state secretary in charge of taxation and the financial sector at the Ministry for National Economy for two and a half years, followed by a year spent at Banque Rothschild where he worked as a consultant. He earned his MA degree at the Budapest University of Economics.



SHAHROKH SHARIAT

M.D., Director of the University Clinic of Urology, Vienna & Assistant professor of urology and oncology in New York, Dallas, Prague and Moscow

TITLE OF THE LECTURE

How to become a successful physician-scientist

DATE OF THE LECTURE

March 24 (Thursday), 2022

ABOUT THE LECTURER

Professor Shariat is a leading member of several multi-centre research groups (Bladder Cancer Research Consortium, Bladder Cancer Detection Group and Urothelial Upper Tract Carcinoma Collaboration) and prospective clinical trials. He is a member of numerous academic societies and a reviewer for a scientific journal, for abstracts at meetings and for grants to national and international organizations. He is on the editorial board of journals such as European Urology, BJU International, World Journal of Urology, Current Opinion in Urology (editor-in-chief) and Immunotherapy. He runs a charity for refugees and participates as a physician in two other charitable projects.

His scientific interest is in urological oncology – including molecular mechanisms and markers, early detection, research into the origin and therapy of diseases, translational studies and outcome research. In particular, he is engaged in the discovery, testing and validation of molecular markers related to the biological and clinical properties of prostate and urothelial carcinomas. Also in 2020, he was awarded the very prestigous Doctor Honoris Causa degree by Semmelweis University.



BOTOND ROSKA

Neurobiologist, Director of the Institute of Molecular and Clinical Ophthalmology Basel (IOB) and Professor of Medicine and Science at the University of Basel, Switzerland

TITLE OF THE LECTURE

How to become a successful scientist

DATE OF THE LECTURE

November 14 (Monday), 2022

ABOUT THE LECTURER

Professor Roska's research is focused on visual perception including its principles and pathways of information processes. His laboratory aims to find ways to repair visual dysfunction by investigating the function of the retina, thalamus and the cortex at the level of cell types and circuits, and using the acquired knowledge to understand disease mechanisms and to develop treatments.

Professor Roska has graduated at Semmelweis University in 1995 and earned a PhD in neurobiology at the University of California, Berkeley in 2002. After finishing his PhD, he researched genetics and virology at the Harvard University Medical School. He then continued his work in Basel, Switzerland to establish a research group at the Friedrich Miescher Institute for Biomedical Research while joining the faculty of the University of Basel. He is now founder director of the Institute of Molecular and Clinical Ophthalmology Basel, Switzerland.



BRUCE A. BEUTLER

Nobel Prize Laureate immunologist and geneticist director of the Centre for the Genetics of Host Defense at the University of Texas

TITLE OF THE LECTURE A journey in immunology by way of genetics

DATE OF THE LECTURE March 27 (Monday), 2023

ABOUT THE LECTURER

Bruce Alan Beutler is an American immunologist and geneticist. He was the first to isolate mouse tumor necrosis factor-alpha (TNF), and to demonstrate the inflammatory potential of this cytokine, proving its important role in endotoxin-induced shock. He discovered an important family of receptors that allow mammals to sense infections when they occur, triggering a powerful inflammatory response. For this work he received the 2011 Nobel Prize in Physiology or Medicine.

Beutler received his undergraduate degree from the University of California at San Diego in 1976, and his MD degree from the University of Chicago in 1981. After two years of residency at the University of Texas Southwestern Medical Center, he became a postdoctoral fellow and then an Assistant Professor at the Rockefeller University. Returning to Dallas in 1986 as an HHMI investigator, he designed recombinant inhibitors of TNF that are widely used in the treatment of rheumatoid arthritis and other inflammatory diseases. Moving in 2000 to the Scripps Research Institute, Beutler developed the largest mouse mutagenesis program in the world, and applied a forward genetic approach to decipher the signaling pathways activated by TLRs.



RANDY SCHEKMAN

Nobel Prize Laureate cell biologist at the University of California, Berkeley

TITLE OF THE LECTURE To be announced

DATE OF THE LECTURE December 15 (Wednesday), 2023

ABOUT THE LECTURER

Randy Wayne Schekman is an American cell biologist who was awarded the 2013 Nobel Prize in Physiology and Medicine for his research on vesicular transport, which has contributed to our understanding of how molecules produced by cells are delivered to the right place at the right time. His main interests are saccharomyces cerevisiae, organelle assembly, intracellular protein transport, assembly of cellular organelles, neurodegenrative disease, regulation of lymphocyte development.

He graduated from high school at Western High School in Anaheim and went on to study at the University of California, Los Angeles (UCLA) in 1966. One of his professors there was Willard F. Libby, who won the Nobel Prize in Chemistry for his invention of radiocarbon dating. He was involved in bacteriophage genetics research during his undergraduate studies and spent a year as an exchange student at the University of Edinburgh. After returning home, he took a summer job at the Biological Laboratories of Harvard University and wrote his first scientific communication based on his research.



THOMAS C. SÜDHOF

German-American Nobel Prize Laureate biochemist professor in the School of Medicine in the Department of Molecular and Cellular Physiology ath Stanford University

TITLE OF THE LECTURE

To be announced

DATE OF THE LECTURE To be announced

ABOUT THE LECTURER

Thomas Christian Südhof is a German-American biochemist who was awarded the 2013 Nobel Prize in Physiology and Medicine for his discovery of how neurotransmitter molecules are transported within cells in vesicles in nerve cells. His work initially focused on the mechanism of neurotransmitter release which is the first step in synaptic transmission, and whose molecular basis was completely unknown in 1986. Later on, Südhof's work increasingly turned to the analysis of synapse formation and specification, processes that mediate the initial assembly of synapses, regulate their maintenance and elimination, and determine their properties.

He studied at the university in Aachen, at Harvard University in Cambridge, Massachusetts in the United States, and at the university in Göttingen. He received his Ph.D. from Göttingen's Max Planck Institute for Biophysical Chemistry in 1982. The following year, Südhof moved to the University of Texas Southwestern Medical Centre. In 2008 he moved to Stanford University in Palo Alto, California.



MARC VAN RANST

Belgian public health doctor and Professor of Virology at the Katholieke Universiteit Leuven and the Rega Institute for Medical Research

TITLE OF THE LECTURE

The Story of a COVID-19 Virologist

DATE OF THE LECTURE June 14 (Wednesday), 2023

ABOUT THE LECTURER

Marc Van Ranst is a Belgian public health doctor and Professor of Virology at the Katholieke Universiteit Leuven (Leuven, Belgium) and the Rega Institute for Medical Research. On 1 May 2007, he was appointed as Interministerial comissionar by the Belgian federal government to prepare Belgium for an influenza pandemic. Professor Van Ranst teaches virology and computational genomics at the Faculty of Medicine at the KU Leuven. Since 1995, he holds an affiliate academic position at the Faculty of Natural Sciences at Charles University in Prague, where he teaches Bioinformatics.

In 2020, during the COVID-19 pandemic, Marc Van Ranst became a member both of the Belgian 'Risk Assessment Group' (RAG), which analyses the risks of coronavirus SARS-CoV-2 for public health, and of the 'Scientific committee Coronavirus' which advises Belgian health authorities on combatting the virus and which makes prognoses on its evolution and spread in Belgium.

He published over 270 scientific papers in peer reviewed journals and contributed eight chapters to books on molecular evolution and bioinformatics. He is also the chairman of the editorial board of VacciNews.net, a social media platform that provides information on vaccines.





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