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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



Vice-Rector for Science and Innovations



PÉTER HEGYI

Director of the

Centre for Translational Medicine



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.



PÉTER HEGYI

Director of the

Centre for Translational Medicine

## 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.





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 research-related 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.

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



GÁBOR VARGA
Vice Director for General operation



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 Expert Scientific Facilitator



MAHMOUD OBEIDAT Year I Coordinator



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, coauthorship, 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.

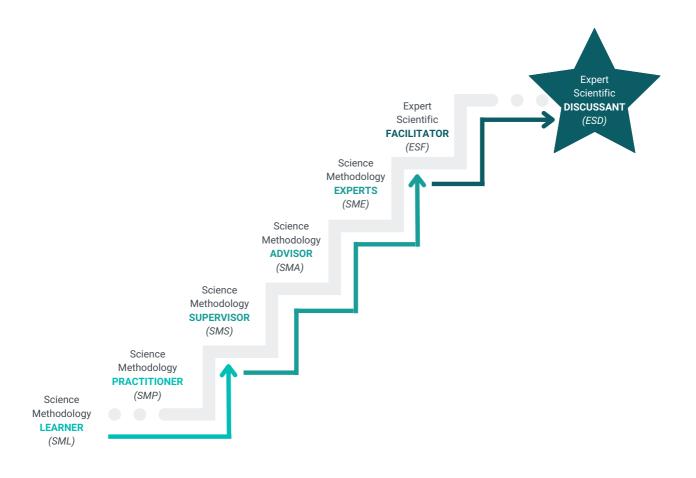
Step four in the progression is **Science Methodology Advisor (SMA)**. The conditions to become an advisor are passing a complex exam, availability of first-authored articles required for own PhD, and a suitably motivated attitude. The higher the expectations, the bigger the benefits get. Those in an 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.





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.



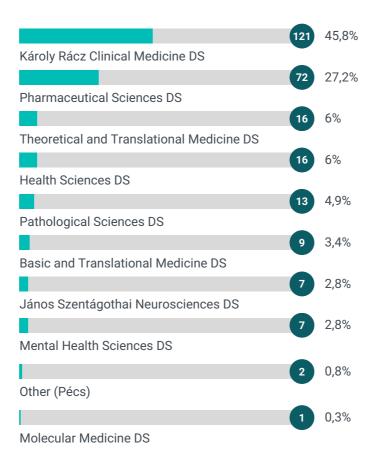
#### 2. AGE DISTRIBUTION

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.



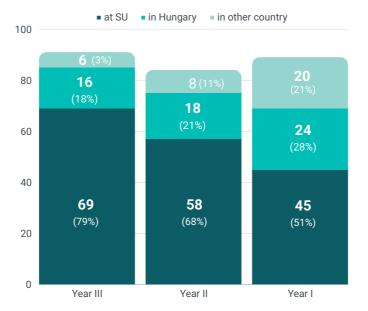
#### 5. FIELD OF RESEARCH

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.

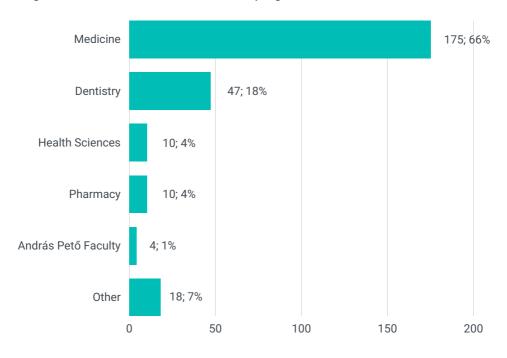


The number of PhD students is growing each year. However, the **highest number of students are from Semmelweis University (SU)**. Below, we are presenting a table with the top SU centers. The Department of Obstetrics and Gynecology and Institute of Pancreatic Diseases provided more than 20 students each. 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
Heim Pál National Pediatric Institute  Bethesda Children's Hospital	
	11
Bethesda Children's Hospital	11 5
Bethesda Children's Hospital  Bajcsy-Zsilinszky Hospital and Clinic	11 5 5
Bethesda Children's Hospital  Bajcsy-Zsilinszky Hospital and Clinic  Hungarian Defense Forces Medical Centre	11 5 5 5 No. OF
Bethesda Children's Hospital  Bajcsy-Zsilinszky Hospital and Clinic  Hungarian Defense Forces Medical Centre  TOP OTHER UNIVERSITIES	11 5 5 5 NO. OF STUDENTS
Bethesda Children's Hospital  Bajcsy-Zsilinszky Hospital and Clinic  Hungarian Defense Forces Medical Centre  TOP OTHER UNIVERSITIES  University of Medicine, Pharmacy, Science and Technology of Tîrgu Mureş	11 5 5 5 NO. OF STUDENTS

#### **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.



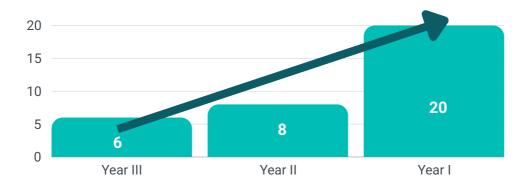
**FORM OF SUPPORT** 

The financial support in our training is constantly changing. Among Year III students, most of the students are **supported by the Hungarian Government** 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.





### **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



ÁDÁM ZOLCSÁK



**GERGELY AGÓCS** 



DÁNIEL VERES



PÉTER FEHÉRVÁRI



TAMÁS KÓI



PÉTER HÁRSFALVI



**BENCE SZABÓ** 



**ZOLTÁN SIPOS** 



NOÉMI GEDE



**NELLI FARKAS** 



ALÍZ FAZEKAS



ANNA WALTER



PÉTER MÁTRAI



MIKOLT BAKONY



SZILVIA KISS-DALA



RÉKA TÓTH

#### **EDUCATION DEVELOPERS**



**JUDIT BENCZE** 



KINGA KINCSŐ HORVÁTH



ZSÓFIA MAGYAR

# SCIENTIFIC METHODOLOGY SUPERVISORS (SMS)

### YEAR III



**BIANCA GOLZIO** 



**KATA KELEMEN** 



MÁRK HERNÁDFŐI



**ANETT SZABÓ** 



**CANER TURAN** 



**ESZTER ÁGNES SZALAI** 



MAHMOUD OBEIDAT



**ALEXANDER SCHULZE WENNING** 



**ANETT RANCZ** 



FANNI ADÉL MEZNERICS



MARIE ANNE ENGH

### YEAR II



**QIAN XINYI** 



**ISABEL PINTO AMORIM DAS VIRGENS** 



PETRANA MARTINEKOVA



**JAKUB HOFERICA** 



**DOROTTYA BASTIDAS-GERGŐ** 



ANNA SÁRA LENYGEL

# 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



**QIAN XINYI**International coordinator

#### COMMUNICATION



**NÓRA KEREKES**Communication coordinator,
Event organiser



VIKTÓRIA KOCSIS Communication coordinator, Graphics designer



ATTILA MÁRTA
Online communication coordinator, IT consultant

#### **SECRETARIAT**



**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



NÁNDOR ÁCS 13 students



**ZSOLT MOLNÁR** 13 students



MIKLÓS GARAMI 11 students



ANDRÁS BÁNVÖLGYI 8 students



**BÁLINT ERŐSS** 8 students



**SZABOLCS VÁRBÍRÓ** 7 students



STEFANIA BUNDUC 6 students



**TIBOR SZARVAS** 5 students



**GÁBOR VARGA**5 students



**DEZSŐ CSUPOR**4 students



**BEÁTA KERÉMI**4 students



NORBERT KISS
4 students



ORSOLYA NÉMETH 4 students



ANDREA PÁRNICZKY
4 students



#### **MOL PROGRAM**



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 high-quality 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).

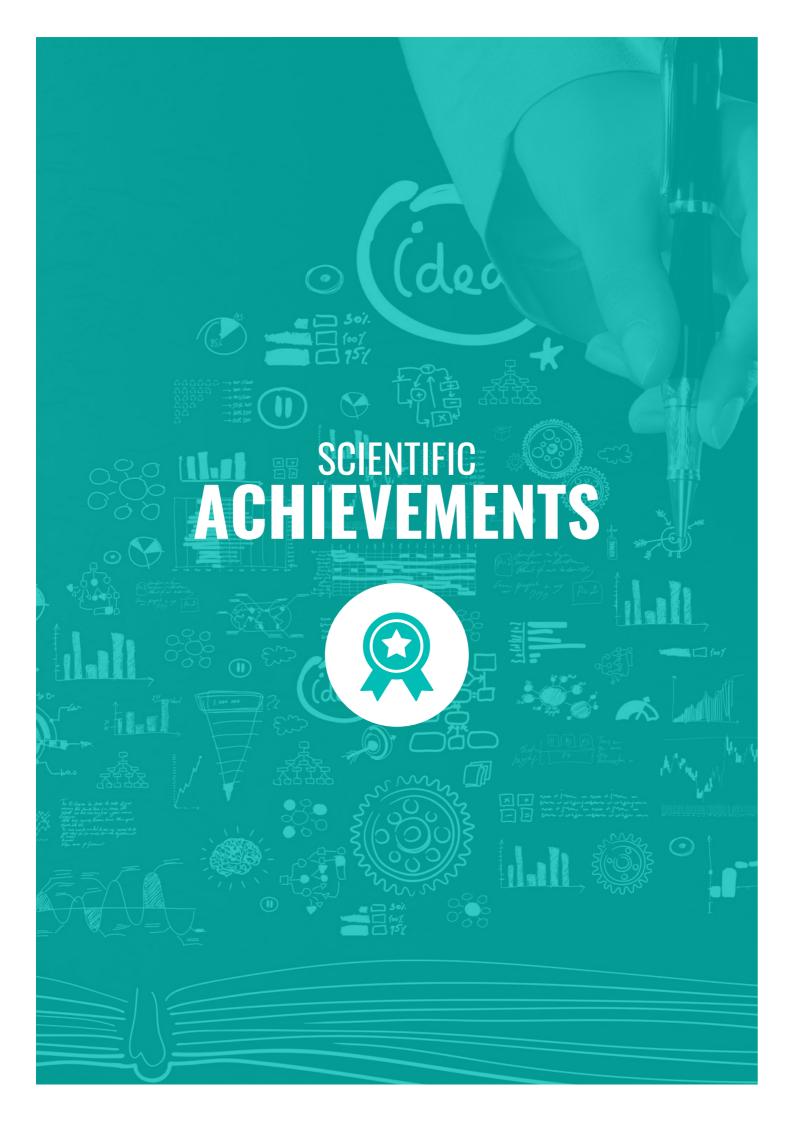
In order to strengthen the international relations of Semmelweis University, we also cooperate with foreign universities beyond the bilateral training. We have established close relations with Wenzhou Medical University (Quzhou, China), Martin University (Slovakia), and Carol Davila University of Medicine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





# SCIENTIFIC SUMMARY



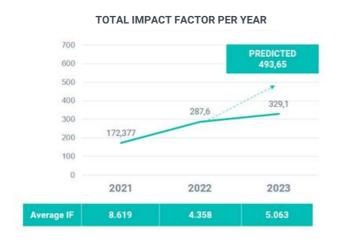
In January 2016, University of Pécs (UP) was the first university in Hungary to innovatively provide the possibility of this new system in Hungary, thereby taking on a completely unique patient care, education and science module.

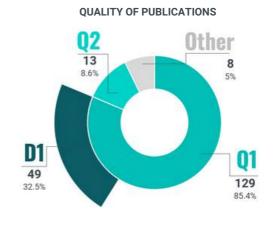
The Institute for Translational Medicine at UP and the Translational Medicine Foundation with the Academia Europaea have developed and launched the Translational Medicine Programme. Since the start of the Translational Medicine PhD programme in 2016, the number and quality of publications has been improving 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

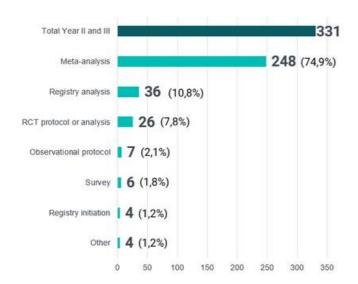






FIRST AUTHOR	JOURNAL	PUBLICATION YEAR	IMPACT FACTOR	D
Hegyi P	Nat Med	2021	87,244	D1
Szentesi A	Gut	2022	31,795	D1
Czapári D	Gastroenterology	2022	29,4	D1
Papp M Crit Care Budai KA eClinMed	2023	15,1	D1	
	eClinMed	2023	15,1	D1





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.



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  $\beta$ -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

#### 2019

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

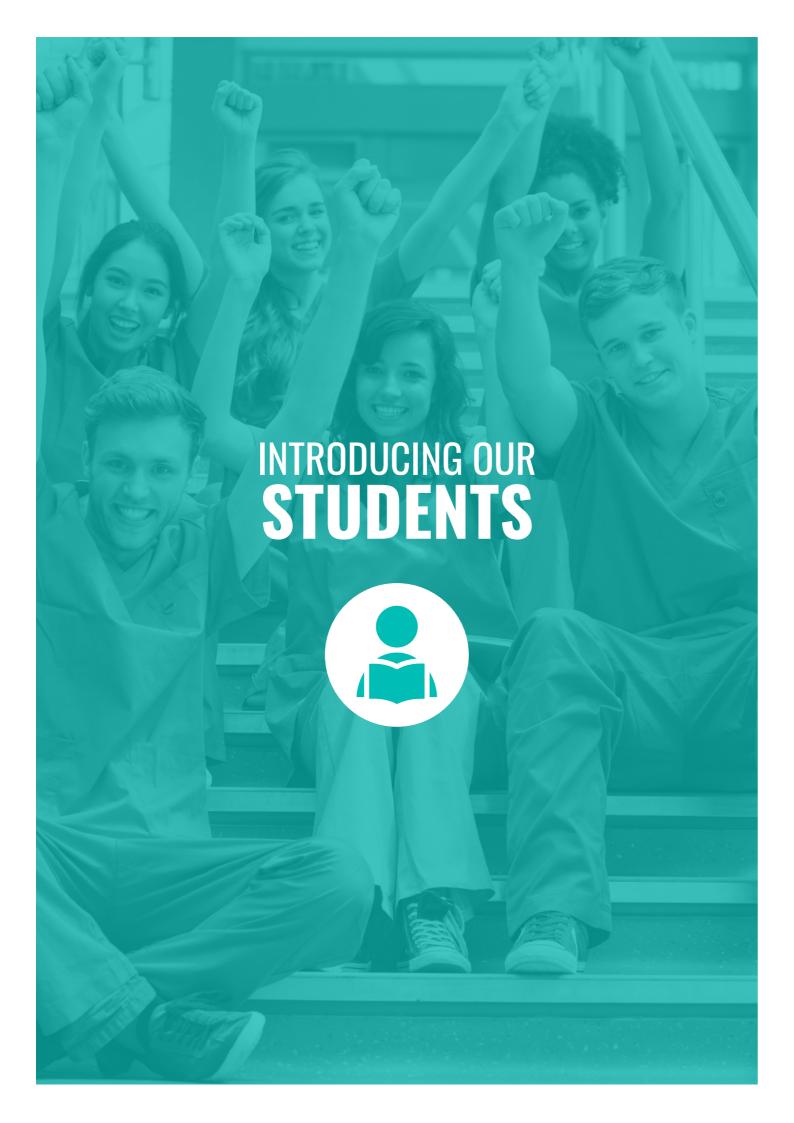
Ca2+ toxicity and mitochondrial damage in acute pancreatitis: translational overview Philosophical Transactions of the Royal Society B - Biological Sciences, IF: 5,846

**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





#### **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.



# THE 1ST YEAR ALL YOU NEED TO KNOW ABOUT IT

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.

## PHASE I.

## YEAR I.

#### LEARNING BY DOING

- how to find the most important question
- how to clarify and simplify the question
- how to design the project
- everyone has to draft their PhD thesis
- everyone has to learn the HDS-TM methodologies
- everyone has to reach the start of data extraction/collection

## PHASE I. PHASE II.

## YEAR I.

LEARNING BY DOING

- how to write an article
- how to communicate professionally
- how to interpret scientific results critically
- everyone is expected to complete their research
- everyone is expcted to show results (there may be exceptions)
- everyone is expected to present their achievements

#### PHASE I. PHASE II. PHASE III.

## YEAR I.

LEARNING BY DOING

Scientific activity

- the opportunity to meet and talk to top researchers
- everyone is expected to complete their search/data summary (there may be exceptions)
- everyone is expected to present their achievements

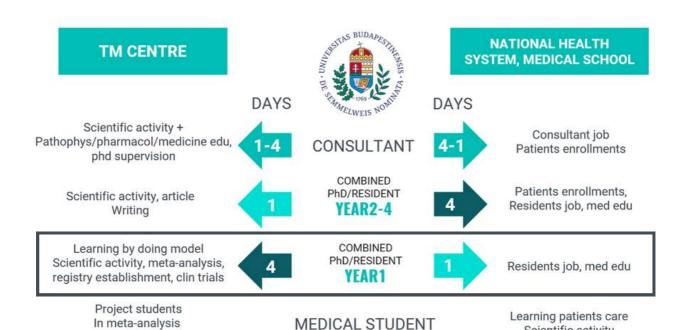
#### PHASE I. PHASE II. PHASE III. PHASE IV.

## YEAR I.

writing – writing - writing

Co-authors

- everyone is expected to complete their first paper (there may be exceptions)
- everyone is expected to present their achievements



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



## **GENDER DISTRIBUTION**



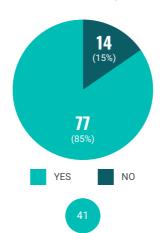
## **AGE DISTRIBUTION**



## **OCCUPATION**



## **NEW ENTRY TO PHD**



# GROUP 1 CARDIOLOGY & INTENSIVE



#### 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





ZSOLT MOLNÁR Group Leader



**GÁBOR DURAY** *Group Leader* 



CANER TURAN
Scientific Methodology
Supervisor



DOROTTYA BASTIDAS-GERGŐ Scientific Methodology Supervisor



BENCE SZABÓ



MIKOLT BAKONY
Statistician

**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



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## **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

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

#### **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



#### TOPIC

Potential effects of GLP-1 analogs in obstructive sleep apnea patients

#### VISION

Provide a better quality of life for people with obstructive sleep apnea by developing novel treatment strategies.

#### **MISSION**

Investigate whether the weight loss drugs GLP-1 analogs could help to reduce/eliminate obstructive sleep apnea symptoms.

#### 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** GALDZYTSKA

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 meta-analysis.

**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

#### VISIO

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 meta-analysis.

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



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25 years
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## **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

#### VISIO

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 meta-analysis.

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.

#### MICCION

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.





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



# MÁTYÁS RÉDFI

MEDICAL IMAGING CENTRE, SEMMELWEIS UNIVERSITY



#### **TOPIC**

Impact of Navigational Systems on CT-guided Interventions

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

#### **MISSION**

Lorem ipsum dolor sit amet, consectetur adipiscing eTo thoroughly research navigational systems' impact on CTguided interventions, assessing safety and effectiveness comprehensively.

#### **SPECIFIC GOALS**

PROJECT 1: Investigating the Safety and Effectiveness of Navigational Systems for Patients Undergoing CT-Guided Intervention: a systematic review and meta-analysis.

PROJECT 2: Evaluation of a novel navigational system to improve the accuracy of CT-guided pulmonary biopsies: retrospective cohort study.



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

## **PETRA SÓLYMOS**

MEDICAL IMAGING CENTRE, SEMMELWEIS UNIVERSITY



Investigating radioembolization as an option in the treatment of liver tumors

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

#### **MISSION**

Determine the efficacy and safety of the isotopes in clinical

#### **SPECIFIC GOALS**

PROJECT 1: Investigating the safety and efficacy of 166Ho radioembolization in patients with liver tumor: a systematic review and meta-analysis. PROJECT 2: Comparing the use of 166Holmium and 90Yttrium isotope in transarterial radioembolization for the treatment of liver tumors: Randomized Controlled Trial.



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

# ILDIKÓ SZÁNTÓ

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



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

Improve postoperative outcomes in high-risk surgical patients.

#### MISSION

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

#### **SPECIFIC GOALS**

PROJECT 1: Investigating the Effects of balanced 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.



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

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## **ESZTER** SZŐKE

SEMMELWEIS HOSPITAL. KISKUNHALAS



Diagnosing and preventing dysphagia associated complications in tracheostomized critically ill patients

Speech therapists and physicians working side-by-side for our patients

#### **MISSION**

Improve tracheostomized patients' lives by reducing aspiration-related complications.

#### **SPECIFIC GOALS**

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.





## 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



GÁBOR VARGA Group Leader



BEÁTA KERÉMI Group Leader



**DÁNIEL VÉGH**Group Leader



ALEXANDER S. WENNING
Scientific Methodology
Supervisor



KATA KELEMEN Scientific Methodology Supervisor



PETRANA MARTINEKOVA Scientific Methodology Supervisor



XINYI QIAN
Scientific Methodology
Supervisor



GERGELY AGÓCS
Statistician



SZILVIA KISS-DALA

**STUDENTS:** Yasir Nabeel Abdulrazzaq, Melinda Antal, Ádám Fekete, Bruna Guimares, Ellay Gutmacher, Kata Sára Haba, Dániel Horváth, Caroline Kelly, Patrik Kreuter, Péter Máron, Adél Eszter Mózes, Lilien Nagy, Elias-Leon Nolden, Flóra Helga Olasz, Petra Papócsi, Adrienn Pál, Bálint Zsombor Sárai, Éva Zsófia Vincze

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



AGE Pr
32 years cc
EDUCATION
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## YASIR NABEEL ABDULRAZZAO

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.



AGE
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## **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.



27 years
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## ÁDÁM FFKFTF

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**

randomized clinical trial

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: Non-

**BRUNA** GUIMARAFS

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.



AGE
35 years
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AGE
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## **ELLAY GUTMACHER**

SEMMELWEIS UNIVERSITY



#### **TOPIC**

Novel insights into the oral - systemic health axis

#### VISIO

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.



AGE
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## 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.



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## **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.



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## **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.



AGE
24 years
EDUCATION
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26 years
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## **PATRIK KRFUTFR**

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**

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

PROJECT 1: Evaluation of flexural strength and antimicrobial characteristic of polymethyl metacrylate incorporated with silver nanoparticles: a systematic review and meta-analysis.

PROJECT 2: Evaluation of antimicrobial characteristic of polymethyl metacrylate incorporated with titanium dioxide: a systematic review and meta-analysis.



AGE
23 years
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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 meta-analysis.

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



AGE
26 years
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## FLÓRA HELGA OLASZ

DEPARTMENT OF PAEDIATRIC DENTISTRY AND ORTHODONTICS, SEMMELWEIS UNIVERSITY



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.



**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.



AGE
27 years
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## **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**

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.



AGE
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# **ADRIENN** PÁL

DEPARTMENT OF PROSTHODONTICS, SEMMELWEIS UNIVERSITY



#### TOPIC

Evaluation of tooth preparation designs for ceramic crowns

#### **VISION**

Offer patients the highest level of precision and accuracy in dental restorations, ensuring optimal oral health and satisfaction.

#### **MISSION**

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

#### 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.



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# **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

#### VISIO

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.

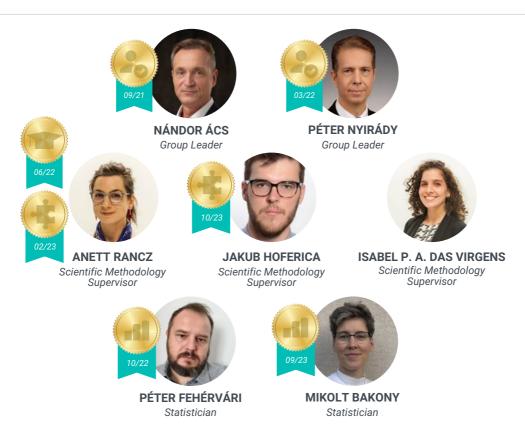
# GROUP 3 GYNECOLOGY & UROLOGY



#### 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 andrology and urology. His fields of interest are uro-oncology, robotic and laparoscopic surgeries.

## MEMBERS OF THE GROUP



**STUDENTS:** Mohammed Altenni, Gökçe Can, András Cébley-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



AGE
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## **MOHAMMED** ALTENNI

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.

#### **SPECIFIC GOALS**

PROJECT 1: Identifying patients who would benefit from enfortumab vedotin in advanced urothelial cancer: a systematic review and meta-analysis.

PROJECT 2: Identifying patients who would benefit from immune checkpoint inhibitors in advanced urothelial cancer: a systematic review and meta-analysis.



AGE
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# **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**

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



AGE
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# **ANDRÁS** CZÉBELY-LÉNÁRT

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, SEMMELWEIS UNIVERSITY



#### **TOPIC**

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 early-feeding versus fasting after bowel resection surgeries: a systematic review and meta-analysis.



AGE
31 years
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# **BOGLÁRKA** FEHÉR

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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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.

#### **SPECIFIC GOALS**

**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 longacting reversible contraception methods: a systematic review and meta-analysis.



AGE
26 years
EDUCATION
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## **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**

Provide evidence on optimal paternal age for having children.

#### **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.



AGE
24 years
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# ÁRPÁD ÁGOSTON JANKÓ

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, SEMMELWEIS UNIVERSITY



#### TOPIC

Effect of oral contraceptives on metabolic balance

#### VISION

Find potential physiological changes and long-term health implications for individuals using these medications.

#### MISSION

Identify a high-risk population and determine the optimal combination in terms of metabolic parameters.

#### **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.



AGE
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# 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.



**AGE** 22 years **EDUCATION** medical student SUPERVISOR(S) Zoltán Klárik, Attila Szijártó

## **I ORFTTA FNIKŐ NYIRÁDY**

Oncoplastic breast surgery and its clinical significance

Find the best technique, which results in the safest

oncological and the best aesthetic outcome.

To aim for perfection in breast reconstruction.

SEMMELWEIS UNIVERSITY

**TOPIC** 

MISSION

#### **SPECIFIC GOALS** PROJECT 1: Investigating the safety and effectiveness of volume displacement and replacement techniques in oncoplastic breastconserving surgery: a systematic review and metaanalysis.

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



AGE 23 years **EDUCATION** nurse SUPERVISOR(S) Nándor Ács E-MAIL zihan.suo@phd.semmelweis.hu

## **ZIHAN SUO**

**TOPIC** 

IMPERIAL COLLEGE LONDON





The relation between maternal factors and birth defects

# cardiac birth defects.

#### MISSION Provide closer maternity counseling to prevent cardiac birth defects.

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.



**AGE** 27 years **EDUCATION** dentist SUPERVISOR(S) Nándor Ács, Petra Nóra Merkely E-MAIL leila0517@gmail.com

## **LEILA TIGHARGHAR**

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY, SEMMELWEIS UNIVERSITY



#### TOPIC

The risk factors of preterm birth and their management

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.



AGE 38 years **EDUCATION** medical doctor SUPERVISOR(S) Péter Riesz, Péter Nyirády E-MAIL varghacsu@gmail.com

#### **JUDIT VARGHA**

DEPARTMENT OF UROLOGY, SEMMELWEIS UNIVERSITY



#### **TOPIC**

Novel treatment approaches in penile cancer

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

#### VISIO

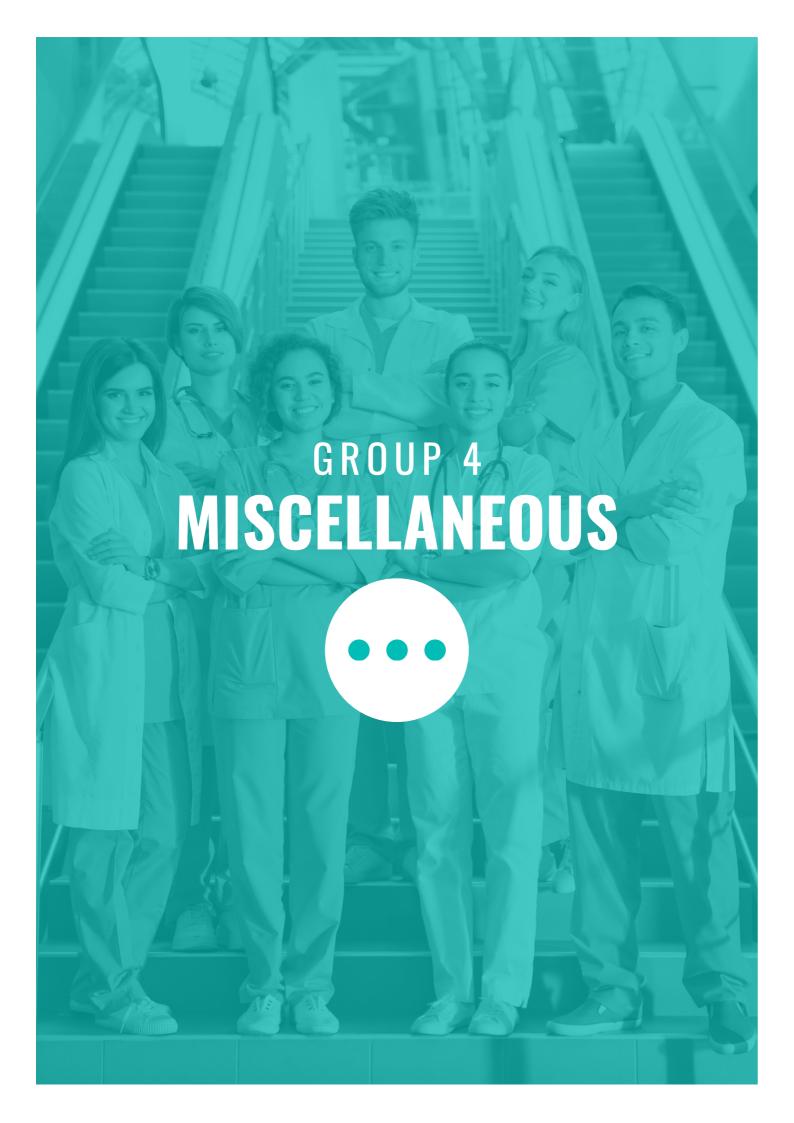
Deliver scientifically empowered practice & care for cancer patients.

## MISSION

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.





## 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**



**SZABOLCS KÉRI**Group Leader



ANDRÁS HORVÁTH Group Leader



ANNA SÁRA LENGYEL
Scientific Methodology
Supervisor



MARIE ANNE ENGH Scientific Methodology Supervisor



SZILVIA KISS-DALA
Statistician



**RÉKA TÓTH** Statistician

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



**AGE** 29 years **EDUCATION** medical doctor SUPERVISOR(S) Tamás Terebessy. Orsolva Gresits E-MAIL bissenov.azamat@phd.

semmelweis.hu

## **AZAMAT BISSENOV**

DEPARTMENT OF ORTHOPEADICS, SEMMELWEIS UNIVERSITY



#### **TOPIC**

Mobile motion analysis

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

#### MISSION

TOPIC

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.



**AGE** 34 years **EDUCATION** medical doctor SUPERVISOR(S) Szabolcs Kéri kancsevalexander@gmail.com

#### **ALEXANDER KANCSEV**

JÓSA ANDRÁS HOSPITAL NYÍREGYHÁZA

cognitive dysfunctions in schizophrenia

cognitive dysfunctions in schizophrenia.

The association between metabolic syndrome and

Schizophrenia being a managable condition compatible

Understand the relationship between metabolism and

# **SPECIFIC GOALS**

PROJECT 1: Investigating the effect of impaired glucose homeostasis on cognitive functions in schizophrenia: a systematic review and meta-

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



# TÍMEA I Á7ÁR

with a fulfilling life.

MISSION

UNIVERSITY OF PÉCS

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

All dementia cases can be predicted before the onset of symptoms

#### **MISSION**

Find the best risk score to accurately predict dementia.

#### **SPECIFIC GOALS**

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.



29 years **EDUCATION** medical doctor SUPERVISOR(S) András Attila Horváth E-MAIL

lazartimi200612@gmail.com

## **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.

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.



AGE 28 years **EDUCATION** cognitive neuroscientist SUPERVISOR(S) András Attila Horváth E-MAIL eszteradics@gmail.com



27 years
EDUCATION
medical doctor
SUPERVISOR(S)
Gábor Skaliczki
E-MAIL
tulassay.eszter@gmail.com

# **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.



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

## **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.



# DERMATOLOGY & IMMUNOLOGY WEDNESDAY, 1 PM - 3 PM

**GROUP MEETINGS** 

#### 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



ANDRÁS BÁNVÖLGYI Group Leader



**NORBERT KISS** Group Leader



**FANNI ADÉL MEZNERICS** Scientific Methodology

Supervisor



**ANNA SÁRA LENGYEL** Scientific Methodology Supervisor



**BENCE SZABÓ** Statistician



**ANNA WALTER** Statistician

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 **EDUCATION** medical student SUPERVISOR(S) Lajos Kemény, Zsuzsanna Kurgyis E-MAIL alzahramkhalid@gmail.com



AGE 35 years **EDUCATION** pharmacist SUPERVISOR(S) Norbert Kiss, András Bánvölgyi, Fanni Adél Meznerics E-MAIL renaro0207@gmail.com



**AGE** 25 years **EDUCATION** medical doctor SUPERVISOR(S) Bernadett Hidvégi, András Bánvölgyi F-MAII bokor.laura@gmail.com



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

## **ALZAHRA** AHMED MOHAMMED

SEMMELWEIS UNIVERSITY

#### **TOPIC**

The management of vitiligo

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.

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



Clinicopathological evaluation of cutaneous lupus

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.

# LILI GULYÁS

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY AND DERMATOONCOLOGY. SEMMELWEIS UNIVERSITY



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



**ANDREA LANCZ** 

TEACHING HOSPITAL MARKUSOVSZKY, SZOMBATHELY



#### TOPIC

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

Patients with prurigo nodularis could have a better quality of life

#### **MISSION**

Optimizing the treatment of prurigo nodularis.

#### 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.



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

## **KATALIN** MARTYIN

DEPARTMENT OF DERMATOLOGY, VENEREOLOGY AND DERMATOONCOLOGY, SEMMELWEIS UNIVERSITY



#### **TOPIC**

New insights into the application of teledermatology

#### **VISION**

The latest technological improvements should be implemented in patient care as soon as possible.

Providing reliable data to facilitate the widespread use of teledermatology.

#### **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.



**AGE** 25 years **EDUCATION** medical doctor SUPERVISOR(S) András Bánvölgyi szondyisti1@gmail.com

# **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



Innovative multimodal imaging techniques in dermatology

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.



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







### 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



MIKLÓS GARAMI Group Leader



ANDREA PÁRNICZKY

Group Leader



ANDRÁS FOGARASI Group Leader



MÁRK HERNÁDFŐI Scientific Methodology Supervisor



DOROTTYA BASTIDAS-GERGŐ
Scientific Methodology
Supervisor



TAMÁS KÓI Statistician



**RÉKA TÓTH** Statistician

**STUDENTS:** Seba Aljomaa, Miklós Bartók, Nóra Beke, Blanka Rebeka Bódy, Barbara Csendes, Judit Xenia Jockers, Emese Kasznár, Dorottya Kenesei, Tíme 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



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



aljomaa.seba@phd.semmelweis.hu

34 years

EDUCATION

medical doctor

SUPERVISOR(S)

Miklós Garami

E-MAIL

drbartok.miklos@gmail.com

### **MIKLÓS** BARTÓK

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



### **TOPIC**

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.



26 years
EDUCATION
medical doctor
SUPERVISOR(S)
Miklós Garami
E-MAIL
beke.nora977@gmail.com

### **NÓRA** BEKE

PEDIATRIC CENTER, TŰZOLTÓ STREET DEPARTMENT, SEMMELWEIS UNIVERSITY



### TOPIC

Treatment Related Cardiotoxicity in Pedatric Oncology

### VISIO

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.



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

# **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.



AGE
30 years
EDUCATION
medical doctor
SUPERVISOR(S)
Mária Judit Molnár, Márta
Szegedi
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csbaboka@gmail.com



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.



AGE
28 years
EDUCATION
medical doctor
SUPERVISOR(S)
Miklós Garami
E-MAIL
[xi.9595@gmail.com

### **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

### **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.

**PROJECT 2:** Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc nibh ligula, bibendum sed volutpat at.



AGE
25 years
EDUCATION
medical doctor
SUPERVISOR(S)
Katalin Müller
E-MAIL
mesi0301@gmail.com

# **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: 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.



AGE
33 years
EDUCATION
conductor
SUPERVISOR(S)
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E-MAIL
dorottya.kenesei@gmail.com

### **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** 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

# TÍMEA I ŐRINCZ-MOI NÁR

BETHESDA CHILDREN'S HOSPITAL



### **TOPIC**

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

### **VISION**

Help children and their families dealing with neurological disorders

Improve the diagnosis of paroxysmal events in childhood.

### **SPECIFIC GOALS**

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

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

### **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.

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

### 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.

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

### **ANITA PFEFFER**

PEDIATRIC CENTER TŰZOLTÓ STREET DEPARTMENT, SEMMELWEIS UNIVERSITY



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

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

### SPECIFIC GOALS

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

PROJECT 2: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc nibh ligula, bibendum sed volutpat at.



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

### KRISZTINA SZALKAY

BETHESDA CHILDREN'S HOSPITAL



Eating and feeding difficulties in children with autism spectrum disorder - From background to tailored treatment

Equality for autistic children and their families.

### **MISSION**

Background clarification for the most effective interventions.

### **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
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# ÁDÁM SZILÁGYI

CENTRE FOR TRANSLATIONAL MEDICINE, SEMMELWEIS UNIVERSITY



### **TOPIC**

Eating and feeding difficulties in children with autism spectrum disorder - From background to tailored treatment

#### 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 hemato-oncology: a systematic review and meta-analysis. **PROJECT 2:** -



### 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





**BÁLINT ERŐSS** Group Leader



PÉTER HEGYI Group Leader





MAHMOUD OBEIDAT Scientific Methodoloav Supervisor



Supervisor



MARIE ANNE ENGH Scientific Methodology



**ANETT RANCZ** Scientific Methodology Supervisor





**ESZTER ÁGNES SZALAI** Scientific Methodoloay Supervisor



**DÁNIEL VERES** Statistician



ÁDÁM ZOLCSÁK Statistician

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, Joana-Irina Rezus, 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

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### **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

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 metaanalysis

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



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

### 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**

**MISSION** 

Cannabinoids in the landscape of cancer

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



ioana.creanga@d.umfiasi.ro

E-MAIL



**AGE** 29 years **EDUCATION** medical doctor SUPERVISOR(S) Orsolya Dohán E-MAIL

cs.domy@gmail.com

### **DOMINIKA CSAJBOK**

INSTITUTE OF PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY



Diagnostic evaluations of low-grade Pancreatic Neuroendocrine Tumors

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 metaanalysis.



AGE
28 years
EDUCATION
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SUPERVISOR(S)
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Bunduc
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DEPARTMENT OF INTERNAL MEDICINE, TOLDY FERENC HOSPITAL



### **TOPIC**

The importance of pancreatic exocrine insufficiency in pancreatic diseases

#### VISION

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc nibh ligula, bibendum sed volutpat at.

### 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 meta-analysis.



AGE
31 years
EDUCATION
psychologist
SUPERVISOR(S)
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## **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.

### **SPECIFIC GOALS**

**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.



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

# **ÁGNES** FODOR

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

### TOPI

Investigating the oncological outcomes after colorectal cancer surgery

### **VISION**

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

### MISSION

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

### **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.



AGE
28 years
EDUCATION
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### **EMESE** FÜRST

INSTITUTE OF PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY



### TOPIC

New insight on secretin-enhanced MRCP in pancreatobiliary pathologies

### VISIO

Make good use of all available diagnostic modalities in different pancreatic conditions.

### MISSION

Improve the diagnostic algorithm and make it more accessible.

### SPECIFIC GOALS

**PROJECT 1:** Investigating the diagnostic accuracy of secretin-enhanced MRCP in pancreaticobiliary pathologies: a systematic review and meta-analysis.

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



26 years
EDUCATION
dietitian
SUPERVISOR(S)
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### **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.



AGE
27 years
EDUCATION
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### 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.

### **SPECIFIC GOALS**

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
medical student
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### **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.



AGE
27 years
EDUCATION
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SUPERVISOR(S)
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### **VERONIKA** LILLIK

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



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.





AGE
23 years
EDUCATION
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SUPERVISOR(S)
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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.



AGE
23 years
EDUCATION
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SUPERVISOR(S)
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### JÁZMIN NÉMETH

STÉG & INSTITUTE FOR PANCREATIC DISEASES, SEMMELWEIS UNIVERSITY



### TOPIC

Oncocardiology in digestive system cancer

#### VICION

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.



AGE
47 years
EDUCATION
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# **ZSUZSANNA** PÁSZTORNÉ BENYÓ

SPACEABC KFT.



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 gravity-related 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)
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Bogdan Ionel Tamba
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### **IOANA-IRINA** REZUŞ

"SFANTUL SPIRIDON" COUNTY EMERGENCY HOSPITAL

### TODIC

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 meta-analysis.





AGE
25 years
EDUCATION
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SUPERVISOR(S)
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# **LŐRINC ANDRÁS** ULMANN

DEPARTMENT OF SURGERY, TRANSPLANTATION AND GASTROENTEROLOGY, SEMMELWEIS UNIVERSITY



#### TOPIC

New Insights in the Prognosis of Pancreatic Ductal Adenocarcinomas

### **VISION**

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

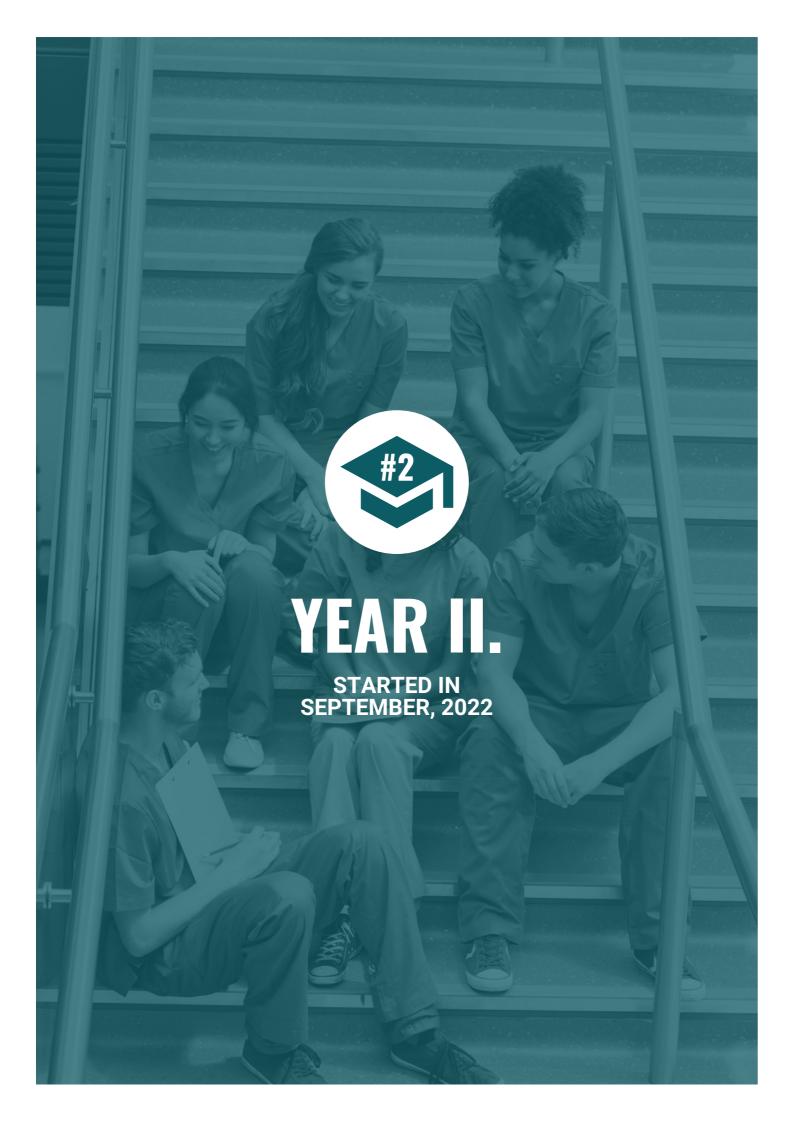
### **MISSION**

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.

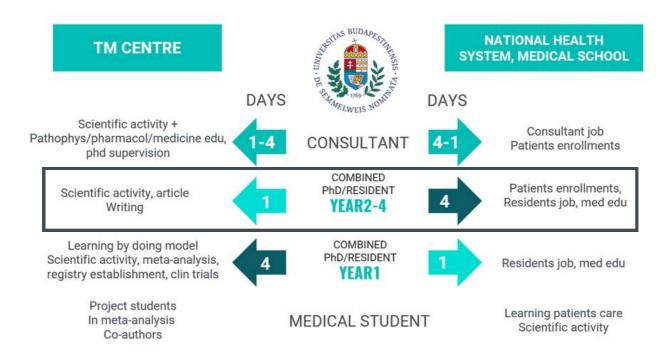
PROJECT 2: Investigating the Effect of Different Neoadjuvant Therapies on the Prognosis of Borderline Resectable Pancreatic Ductal Adenocarcinomas: A Systematic Review and Meta-analysis.



# 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.

PHASE I. PHASE II.
YEAR II.

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

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**

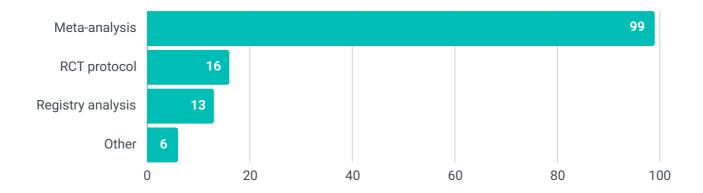
There are no compulsory courses that students have to attend. However, the schedule for Year I is freely available. Year II students should feel free to attend if any of the courses if they lack any methodology knowledge. The courses have to parts, an e-learning is followed by an in-person course which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

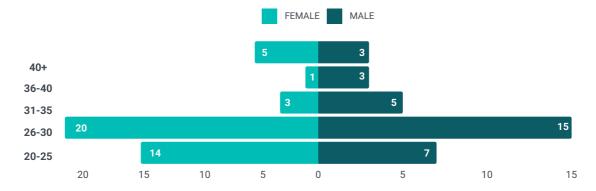




### **GENDER DISTRIBUTION**



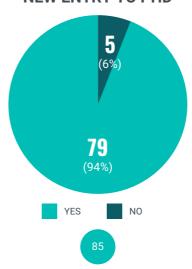
### **AGE DISTRIBUTION**



### **OCCUPATION**



### **NEW ENTRY TO PHD**





### 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**







**ZSOLT MOLNÁR**Group Leader

ANDRÁS HORVÁTH Group Leader



CANER TURAN
Scientific Methodology
Supervisor



ALEXANDER S. WENNING
Scientific Methodology
Supervisor



PÉTER FEHÉRVÁRI

**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)
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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 meta-analysis. 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** FHRENBERGER

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)
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# **GYÖRGY** GULÁCSI

SEMMELWEIS UNIVERSITY, DEP. OF RADIOLOGY



### 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)
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Zsolt Molnár
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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 meta-analysis

Project started: May 2023

### PROGRESS LEVEL

Individual



AGE
41 years
EDUCATION
medical doctor
SUPERVISOR(S)
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László Zubek
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semmelweis-univ.hu

### **NIKOLETT KISS**

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE



### **TOPIC**

Intensive care - Cardiac surgery

#### VISION

For science to prevail over routine.

#### MISSION

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

### **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)
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# KLÁRA BORBÁLA KÖRMENDY

BAJCSY-ZSILINSZKY HOSPITAL AND CLINIC





Otorhinolaryngology - Middle ear surgery

### VISION

**TOPIC** 

Lower cholesteatoma recidivism.

### **MISSION**

Investigating currently used staging systems and follow-up methods.

**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



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

Understanding the biological background of schizophreniaspectrum disorders.

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

# **RICHÁRD** MASSZI

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE



### **TOPIC**

Cardiology - Health faulire

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

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

Intensive care - Sepsis

NEW SZENT JÁNOS HOSPITAL AND CLINIC



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

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

Project started: November 2022

### **PROGRESS LEVEL**

Individual



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

## **MISSION**

TOPIC

Protocolize and individualize procalcitonin use in the ICU.



AGE
30 years
EDUCATION
medical doctor
SUPERVISOR(S)
András Horváth
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03/23

### **DANUTA SZIRMAI**

NATIONAL INSTITUTE OF MENTAL HEALTH, NEUROLOGY AND NEUROSURGERY



### **TOPIC**

Neuropsychiatry - Consciousness

#### VISION

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



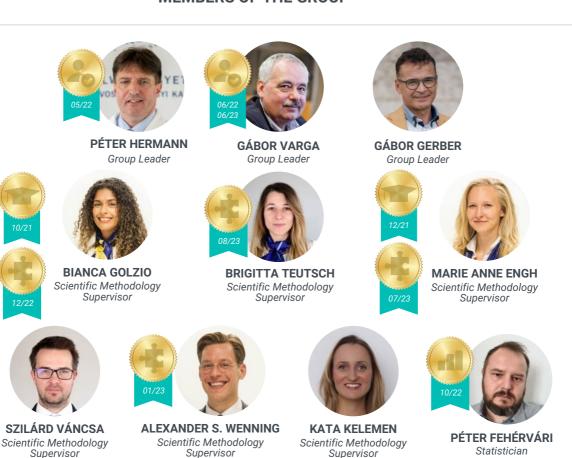


### INTRODUCTION TO THE GROUP



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
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### **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
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SUPERVISOR(S)
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### 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 meta-analysis

Project started: June 2023

### **PROGRESS LEVEL**

Individual



AGE
27 years
EDUCATION
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SUPERVISOR(S)
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### **BULCSÚ** BENCZE

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



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

**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



Dentistry - Implantology

### 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.



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26 years
EDUCATION
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### **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

### **PROGRESS LEVEL**

Project started: November 2022

Accelerator



AGE
42 years
EDUCATION
dentist
SUPERVISOR(S)
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E-MAIL
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### **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
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SUPERVISOR(S)
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### XINYI QIAN

SEMMELWEIS UNIVERSITY, DEP. OF PROSTHODONTICS



### TOPIC

Dentistry - Implantology

### VISION

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
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# **VIRÁG** RÓNA

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



### **TOPIC**

Dentistry - Prosthodontics

### **VISION**

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

### **MISSION**

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

### **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

### **PUBLISHED ARTICLE(S)**

**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
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SUPERVISOR(S)
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# **DALMA** TÁBI

SEMMELWEIS UNIVERSITY, DEPARTMENT OF COMMUNITY DENTISTRY



### TOPIC

Dentistry - Orthodontics

### VISION

Most of the children with disabilities can attend to a specialized preventive educational program, their oral-hygiene 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)
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### **ANNA TAKÁCS**

SEMMELWEIS UNIVERSITY, DEP. OF COMMUNITY DENTISTRY



### TOPIC

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.

### 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

### PUBLISHED ARTICLE(S)

**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
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### **ORSOLYA** VÁMOS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



### **TOPIC**

Dentistry - Prosthodontics

### **VISION**

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

#### 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
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SUPERVISOR(S)
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### **BOLDIZSÁR** VÁNKOS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



### **TOPIC**

Dentistry - Implantology

#### VISIO

Modern, simple, accurate and patient-friendly workflow in implant prosthodontics.

### MISSION

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

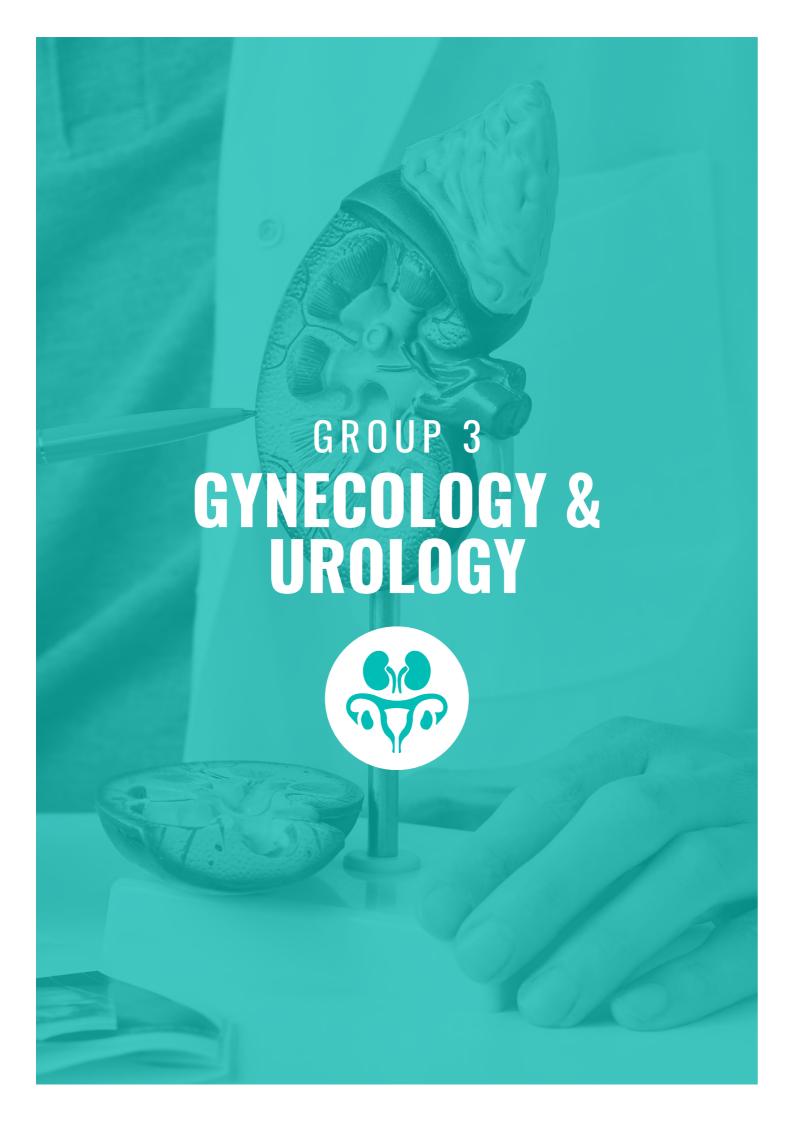
Project started: September 2022

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 MEETINGS**

TUESDAY, 4:00 PM - 6:00 PM

### 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



NÁNDOR ÁCS Group Leader



**PÉTER NYIRÁDY**Group Leader



JAKUB HOFERICA
Scientific Methodology
Supervisor



ISABEL P. A. DAS VIRGENS
Scientific Methodology
Supervisor



BENCE SZABÓ
Statistician

**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 meta-

Project started: May 2023

### **PROGRESS LEVEL**

Individual



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

### ÁDÁM CSIR7Ó

SEMMELWEIS UNIVERSITY, DEP. OF OBSTETRICS AND GYNECOLOGY



### TOPIC

Obstetrics, gynecology - Endometriosis

Endometriosis-related pain should be a concept of the past, with one pill a day.

### **MISSION**

To find the most effective pain relief therapy for endometriosis

### **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 E-MAIL gandrasmihaly@gmail.com

# **ANDRÁS MIHÁLY GÉC7I**

SEMMELWEIS UNIVERSITY, DEPT. OF OBSTETRICS AND GYNECOLOGY



### **TOPIC**

Obstetrics, gynecology - Plastic surgery

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 example@example.com

### **ANDRÁS** HARAIKA

MEDICAL STUDENT

# **SPECIFIC GOALS**

### **TOPIC**

Obstetrics, gynecology - Oncology

Revealing the effect of oral contraceptive use on cancer risk.

### MISSION

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

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 kovacsdenespeter@gmail.com

### **DÉNES PÉTER** KOVÁCS

SEMMELWEIS UNIVERSITY, DEPT. OF OBSTETRICS AND GYNECOLOGY



### **TOPIC**

Obstetrics, gynecology - Infertility

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**

Individual



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

### **ANDRÁS** KUBIK SEMMELWEIS UNIVERSITY

### TOPIC

**Urology - Surgery** 

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



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
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SUPERVISOR(S)
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### **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



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29 years
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### **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.

### **SPECIFIC GOALS**

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 iron-

deficiency anemia on congenital anomalies: a systematic review and meta-analysis Project started: September 2022

### **PROGRESS LEVEL**

Accelerator

### **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
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### **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

### **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

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



AGE
33 years
EDUCATION
medical doctor
SUPERVISOR(S)
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### **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 meta-analysis

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)
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# **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

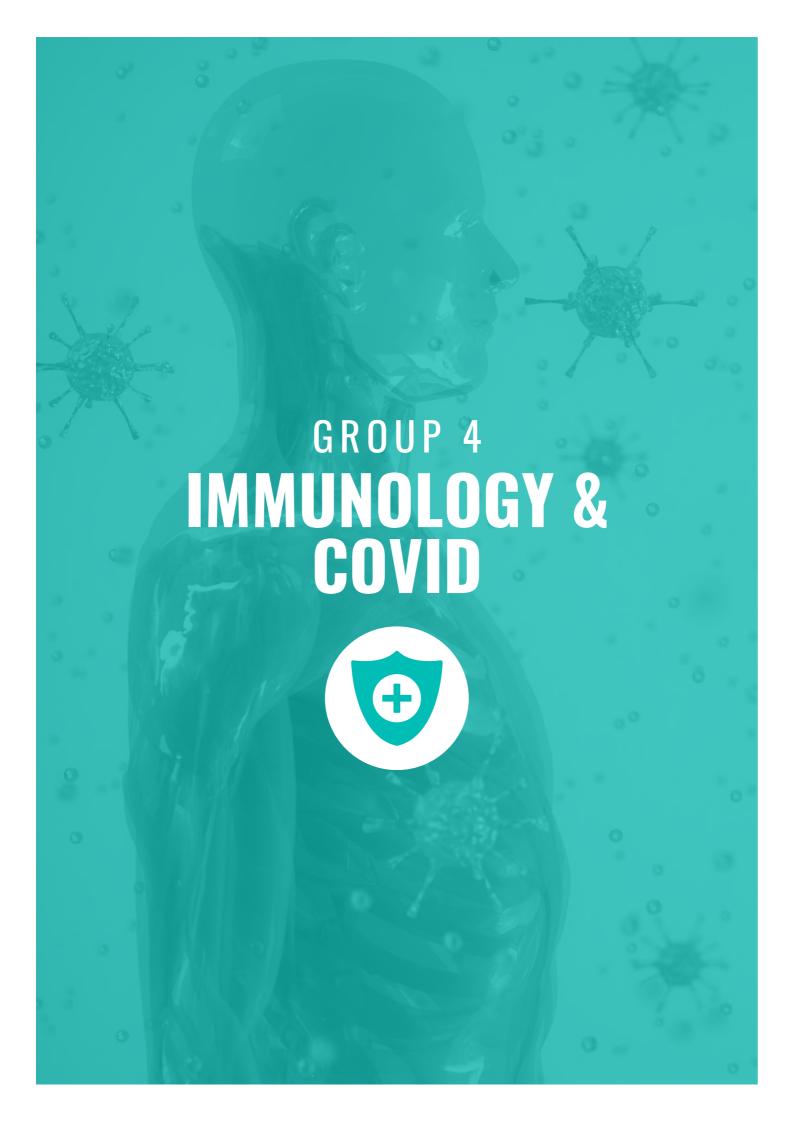
Project started: September 2022

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

Project started: November 2022

### **PROGRESS LEVEL**

Individual



#### **GROUP MEETINGS**

WEDNESDAY, 3:30 PM - 4:30 PM

#### 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



**DEZSŐ CSUPOR**Group Leader



ANDRÁS BÁNVÖLGYI Group Leader



LAJOS VINCE KEMÉNY Group Leader



DOROTTYA BASTIDAS-GERGŐ

Scientific Methodology
Supervisor



FANNI ADÉL MEZNERICS Scientific Methodology Supervisor



ALEXANDER S. WENNING
Scientific Methodology
Supervisor



PÉTER FEHÉRVÁRI Statistician

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
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08/23

#### **DOROTTYA** BASTIDAS-GERGŐ

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
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# **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**

Optimizing the therapeutic sequence considering their effects on comorbidities.

#### **SPECIFIC GOALS**

PROJECT 1: Investigating the effect of TNF-inhibitors 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 TNF-inhibitors on the risk of heart failure Method: systematic review and meta-analysis Project started: June 2023

#### PROGRESS LEVEL

Accelerator



AGE
27 years
EDUCATION
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#### **ANNA SÁRA LENGYEL**

SEMMELWEIS UNIVERSITY, DEP. OF DERMATOLOGY VENEROLOGY AND DERMATOONCOLOGY



#### TOPIC

Dermatology - Oncology

#### VISION

To improve and extend the life of melanoma patients.

#### MISSION

To translate basic research to clinical medicine to optimize treatment strategies.

#### **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 metanalysis

#### **PROGRESS LEVEL**



AGE
37 years
EDUCATION
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#### **MÁRTON** RAKOVICS

LORÁND EÖTVÖS UNIVERSITY (ELTE)

#### **TOPIC**

COVID-19 -Statistics

#### **VISION**

Make AI an everyday tool in healthcare.

#### **MISSION**

Develop AI models for disease severity classification problems.

#### **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
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#### **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
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# **ANDREA** TÓTH-MÉSZÁROS

COGNIZANT HUNGARY

**PUBLISHED ARTICLE(S)** 

#### 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.

#### 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

PROJECT 1: Tóth-Mészáros, A. et al. (2023) The effect of adaptogenic plants on stress: A systematic review and meta-analysis

Journal of Functional Foods, Q1, IF: 5.600



#### 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
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#### MÁTÉ ÉLIÁS

SZENT BORBÁLA HOSPITAL, DEP. OF GYNECOLOGY



#### **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
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# **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
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# **LOTTI LÚCIA** LŐCZI

SEMMELWEIS UNIVERSITY, FACULTY OF MEDICINE

#### TOPIC

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

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





#### 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 toptier 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



ANDREA PÁRNICZKY
Group Leader



MIKLÓS GARAMI Group Leader



Scientific Methodology Supervisor



MAHMOUD OBEIDAT
Scientific Methodology
Supervisor



MÁRK HERNÁDFŐI Scientific Methodology Supervisor



**DÁNIEL VERES**Statistician

**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
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10/23

#### 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  $\beta$ -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



AGE
28 years
EDUCATION
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#### **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
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#### **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**





AGE
29 years
EDUCATION
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# **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
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#### **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

#### 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
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SUPERVISOR(S)
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#### **GRÉTA SZILVIA MAJOR**

HEIM PÁL NATIONAL PEDIATRIC INSITUTE



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



AGE
43 years
EDUCATION
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#### **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



AGE
27 years
EDUCATION
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#### **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
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### **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

#### PROGRESS LEVEL

Bowel Disease: registry analysis

Project started: October 2022

Individual



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

#### **VIVIEN** UNGER

CSOLNOKY FERENC HOSPITAL

**TOPIC** 

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

Pediatrics - Placental and umbilical cord pathologies

#### 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

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 MEETINGS**

TUESDAY, 4:30 PM - 6:00 PM

#### 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



**BÁLINT ERŐSS**Group Leader



KRISZTINA HAGYMÁSI Group Leader







ESZTER ÁGNES SZALAI Scientific Methodology Supervisor



MAHMOUD OBEIDAT Scientific Methodology Supervisor



DÁNIEL VERES
Statistician

**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
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#### **DÁNIEL** BFDNÁRIK

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

safety of different therapies in Clostridioides difficile infection in pediatric patients
Project started: November 2022

#### **PROGRESS LEVEL**

Accelerator



AGE
29 years
EDUCATION
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## **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



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27 years
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11/22

#### **BETTINA BUDAI**

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



#### TOPIC

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

#### **PROGRESS LEVEL**



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#### **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

#### 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



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

#### CAI GFFU

TOPIC

VISION

CENTRE FOR TRANSLATIONAL MEDCINE

Improving the prognosis of acute pancreatitis patients:

Explore the effects of virus infection in GI system.

Gastroenterology - Acute pancreatitis

Less common etiologies.



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

#### **PROGRESS LEVEL**

Accelerator





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

#### **BÁLINT** GFI I ÉRT

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

#### **PROGRESS LEVEL**



AGE
29 years
EDUCATION
medical doctor
SUPERVISOR(S)
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Peter Banovnic
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10/23

#### **JAKUB HOFERICA**

UNIVERSITY HOSPITAL MARTIN

#### TOPIC

Gastroenterology - Hepatology

#### VISIO

To promote evidence-based medicine in gastroenterology.

#### MISSION

To better understand risk factors in gastroenterology.

#### **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



AGE
28 years
EDUCATION
medical doctor
SUPERVISOR(S)
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12/22

#### DIANA-ELENA IOV SAINT SPIRIDON EMERGENCY HOSPITAL IASI, ROMANIA



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 2023

#### **PROGRESS LEVEL**

Individual



AGE
30 years
EDUCATION
medical doctor
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#### **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

#### PROGRESS LEVEL





AGE
30 years
EDUCATION
medical doctor
SUPERVISOR(S)
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#### **MÓNIKA BERNADETT** LIPP

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



#### **TOPIC**

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

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
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#### **PETRANA** MARTINEKOVA

CANDENA SLOVAKIA



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

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



05/23



AGE
27 years
EDUCATION
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SUPERVISOR(S)
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#### **PANAGIOTIS** PARASKEVOPOULOS

SEMMELWEIS UNIVERSITY. CENTRE FOR TRANSLATIONAL MEDICINE



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

#### **PROGRESS LEVEL**

Accelerator



Gastroenterology - Pancreaticobiliary

#### VISION

Improve palliation of critically ill patients.

#### **MISSION**

Find a proper idea and implement it properly.



AGE
48 years
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#### 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 factor-alpha inhibitors with anti-inflammatory IBD therapy on colitis associated colorectal cancer - Systematic review and meta-analysis

#### **PROGRESS LEVEL**

Project started: December 2022

Accelerator



AGE
26 years
EDUCATION
medical doctor
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#### **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



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27 years
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#### **DOROTTYA** TARJÁN

SEMMELWEIS UNIVERSITY, INSTITUTE OF PANCREATIC DISEASES



#### TOPIC

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
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### **LAURA** TÓTH

SEMMELWEIS UNIVERSITY, INSTITUTE OF PANCREATIC DISEASES



#### **TOPIC**

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**



# 3 YEAR III. ALL YOU NEED TO KNOW ABOUT IT

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

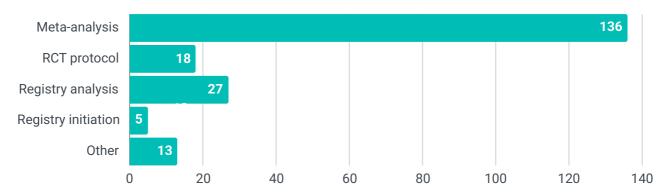
Years III and IV are the second phases of the PhD training. Those who successfully completed the Progress Report VI (Complex Exam) can continue the TM PhD training. Based on the minimum requirement of the previous Progress Reports, all students must have at least a submitted manuscript. However, for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





#### **GENDER DISTRIBUTION**



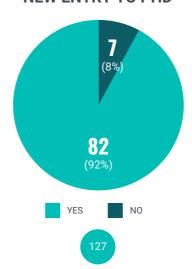
#### **AGE DISTRIBUTION**



#### **OCCUPATION**



#### **NEW ENTRY TO PHD**





#### 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





RITA NAGY Scientific Methodology Supervisor



Scientific Methodology Supervisor



PÉTER FEHÉRVÁRI Statistician

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



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39 years
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#### **ESZTER BAKÓ**

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PHARMACOGNOSY AND TOXICOLOGY

#### TOPIC

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
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#### **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.

#### **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

Completed

#### PUBLISHED ARTICLE(S)

**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



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31 years
EDUCATION
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#### **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
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10/22



AGE
28 years
EDUCATION
medical doctor
SUPERVISOR(S)
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11/22



AGE
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EDUCATION
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SUPERVISOR(S)
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#### 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.

#### **SPECIFIC GOALS**

PROJECT 1: To investigate ulinastatinsomatostatin 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

#### **PUBLISHED ARTICLE(S)**

**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

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



#### TOPIC

Otorhinolaryngology - Cholesteatoma

#### **VISION**

Clinicians use the most effective therapeutic options in the field of middle ear surgery.

#### MISSION

Investigate therapeutic options and create high-level evidence.

#### **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 meta-analysis

Project started: October 2021

#### PROGRESS LEVEL

Graduate

#### PUBLISHED ARTICLE(S)

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**

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 meta-analysis of randomized clinical trials.

Project started: October 2021

Project started: October 2021

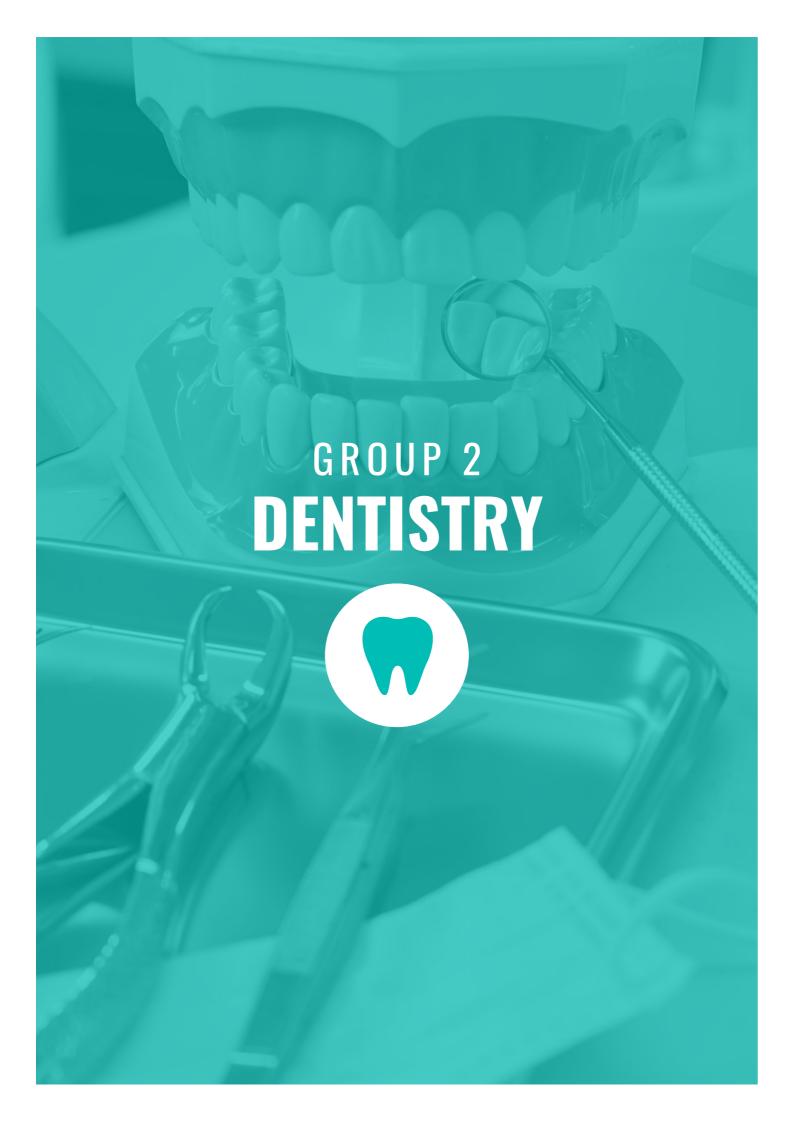
#### **PROGRESS LEVEL**

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





#### 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**



**BIANCA GOLZIO** 

Scientific Methodology

Supervisor









**GÁBOR GERBER**Group Leader







SZILÁRD VÁNCSA Scientific Methodology Supervisor



ALEXANDER S. WENNING Scientific Methodology Supervisor



KATA KELEMEN
Scientific Methodology
Supervisor



BENCE SZABÓ
Statistician

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
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#### **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.

#### **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

#### **PUBLISHED ARTICLE(S)**

**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



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29 years
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10/21



10/21



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#### **BIANCA** GOLZIO NAVARRO CAVALCANTE

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORAL BIOLOGY



#### **TOPIC**

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.

#### 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

#### PROGRESS LEVEL

Project started: October 2021

Excellence

#### **PUBLISHED ARTICLE(S)**

**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
30 years
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#### 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 review and meta-analysis

#### **PROGRESS LEVEL**

Completed

#### PUBLISHED ARTICLE(S)

**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
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EDUCATION
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Judit Borbély
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nemethanna18@gmail.com



04/23

# ANNA NÉMETH SEMMELWEIS UNIVERSITY. DEPARTMENT OF PROSTHODONTICS



Dentistry - Prosthodontics

#### VISION

High quality digital prosthodontic treatment using 3D printing technology as a routine.

#### MISSION

3D printing to clinical practice.

#### **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

# **ALEXANDER** SCHULZE WENNING

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

#### PROGRESS LEVEL

Accelerator



AGE
30 years
EDUCATION
medical doctor
SUPERVISOR(S)
Gábor Varga,
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01/23



AGE 29 years **EDUCATION** dentist SUPERVISOR(S) Réka Fazekas, Bálint Molnár E-MAIL eleonorasolyom@gmail.com

# **ELEONÓRA** SÓLYOM

SEMMELWEIS UNIVERSITY, DEPARTEMENT OF CONSERVATIVE DENTISTRY



Dentistry - Periodontology

#### VISION

To change the mindset of tooth extraction.

#### MISSION

None of the extraction sockets should be left unpreserved.

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

#### **PROGRESS LEVEL**

Completed

#### **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

To provide the best treatment for my patients in implant rehabilitation.

Implementing the fully digital workflow in every aspect of implant rehabilitation.

#### **SPECIFIC GOALS**

PROJECT 1: Clinical outcomes of monolithic zirconia and metal-ceramic implant-supported single restorations

Project started: September 2021

PROJECT 2: The influence of abutment height on crestal bone stability and peri-implant soft tissue Project started: May 2022

#### **PROGRESS LEVEL**

Completed

#### **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



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



09/23



AGE
28 years
EDUCATION
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SUPERVISOR(S)
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#### **ESZTER UHRIN**

SEMMELWEIS UNIVERSITY, DEPARTMENT OF COMMUNITY DENTRISTRY



#### **TOPIC**

Dentistry - Teledentistry

#### **VISION**

A teledentistry application.

#### **MISSION**

Using teledentistry in the diagnosis of oral lesions in primary dental care.

#### 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 Meta-

Project started: October 2021

#### **PROGRESS LEVEL**

Accelerator

analysis

#### PUBLISHED ARTICLE(S)

**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



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#### **VIKTÓRIA** VITAI

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PROSTHODONTICS



#### **TOPIC**

Dentistry - Digital dentistry

#### VISION

High-end digital Prosthodontics available for all patients.

#### MISSION

Intraoral scanning systems to prosthodontic workflow.

#### **SPECIFIC GOALS**

**PROJECT 1:** Evaluation of the accuracy of intraoral scanners for complete-arch scanning: a systematic review and meta-analysis Project started:

September 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 MEETINGS**

TUESDAY, 4:00 PM - 5:30 PM

#### INTRODUCTION TO THE GROUP



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



NÁNDOR ÁCS Group Leader



**PÉTER NYIRÁDY**Group Leader



JAKUB HOFERICA
Scientific Methodology
Supervisor



ISABEL P. A. DAS VIRGENS
Scientific Methodology
Supervisor



SZILÁRD VÁNCSA 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 baradacsist@gmail.com

# **ISTVÁN** BARADÁCS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY



### TOPIC

Obstetrics, gynecology - Oncology

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



**AGE** 31 years **EDUCATION** medical doctor SUPERVISOR(S) Tibor Szarvas E-MAIL fazekastamas192@gmail.





# TAMÁS FAZEKAS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF UROLOGY



# **TOPIC**

Urology - Oncology

Precision medicine and individual molecular targeted therapy - a major breakthrough in oncology.

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

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

Platinum Chemotherapy in Patients with BRCA-positive Metastatic Castration-resistant Prostate Cancer. A Systematic Review and Meta-analysis

PROJECT 2: Fazekas, T. et al. (2023) Poly (ADP-ribose) Polymerase Inhibitors Have Comparable Efficacy with

Eur Urol Oncol, D1, IF: 8.200



**AGE** 28 years **EDUCATION** medical doctor SUPERVISOR(S) Pál Ákos Deák filipovdora@gmail.com

# **TEODÓRA** FILIPOV

SEMMELWEIS UNIVERSITY, DEPARTMENT OF TRANSPLANTATION AND SURGERY



# **TOPIC**

Radiology - Urology

To lower patient discomfort by offering minimally invasive treatment options and less invasive diagnostic tools.

# **MISSION**

To research novel techniques and stay up to date.

# **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**



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27 years
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AGE
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01/22

# **DORINA GREFF**

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY



### 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

# **PROGRESS LEVEL**

Project started: October 2021

Completed

# **PUBLISHED ARTICLE(S)**

**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

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY



# **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 meta-analysis

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 GYNAECOLOGY



# **TOPIC**

Obstetrics, gynecology - Perinatology

# VISIO

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



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27 years
EDUCATION
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# **ANNA EVELIN JUHÁSZ**

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.

# **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

# **PUBLISHED ARTICLE(S)**

**PROJECT 1:** Name Surname et al (2022) Galactomannans are the most effective soluble dietary fibers in type 2 diabetes: a systematic review and network meta-analysis

Am J Clin Nutr, Q1, IF: 7.100

PROJECT 2: Name Surname et al (2023) Reply to Zurbau et al.

Am J Clin Nutr, **D1**, **IF:** 7.100



AGE
33 years
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# **BALÁZS** KOMORÓCZY

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY



# **TOPIC**

Obstetrics, gynecology - Preterm birth

#### VISION

To prevent adverse pregnancy outcomes e.g. preeclampsia and preterm birth to reduce avoidable fetal and maternal complications.

# MISSION

To develop a reliable screening model for pregnancy complications leading to preterm birth.

# **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 an observational study

Project started: November 2021

# **PROGRESS LEVEL**

Individual



AGE
33 years
EDUCATION
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SUPERVISOR(S)
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# **ÁKOS** MÁTRAI

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY



# TOPIC

Obstetrics, gynecology - Infectology

# VISIO

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
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11/21



03/23



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09/22

# **BOGLÁRKA PETHŐ**

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY



# **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

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

#### VISIO

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. **01. 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 meta-analysis: 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*, **Q1**, **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



**ZSOLT MOLNÁR**Group Leader



ANDRÁS HORVÁTH Group Leader



RITA NAGY Scientific Methodology Supervisor



MARIE ANNE ENGH Scientific Methodology Supervisor



PÉTER FEHÉRVÁRI Statistician

**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

Introducing innovative approaches in medicine through Translational research from bedside to bench and bench to bedside, for my patients all over the world.

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 7ima E-MAIL b.kiss96@gmail.com

# **BOLDIZSÁR** KISS

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE



# TOPIC

Cardiology - Resuscitation

The best medical knowledge and practice needs a constant update by scientific research.

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



08/22

# **PÉTER MÁRTON** KULYASSA

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE



# **TOPIC**

Interventional cardiology - Drug-eluting stents

To reduce the burden of coronary heart disease with improved coronary interventions.

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 metaanalysis

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
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# **HENRIETTE** MÉSZÁROS

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTRE



#### **TOPIC**

Cardiology - Left atrial strain analysis

#### VISION

The detection of atrial fibrillation requires expensive prolonged monitoring.

# 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



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27 years
EDUCATION
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# **BOGLÁRKA** VERES

SEMMELWEIS UNIVERSITY, HEART AND VASCULAR CENTER



# **TOPIC**

Interventional cardiology - Cardiac resynchronization

#### VISION

To help heart failure patients receive the most effective, evidence-based therapy.

# **MISSION**

To conclude from observations, which we can include in everyday clinical practice.

# **SPECIFIC GOALS**

**PROJECT 1:** The benefits of adding a defibrillator to cardiac resynchronization therapy: a systematic review and meta-analysis

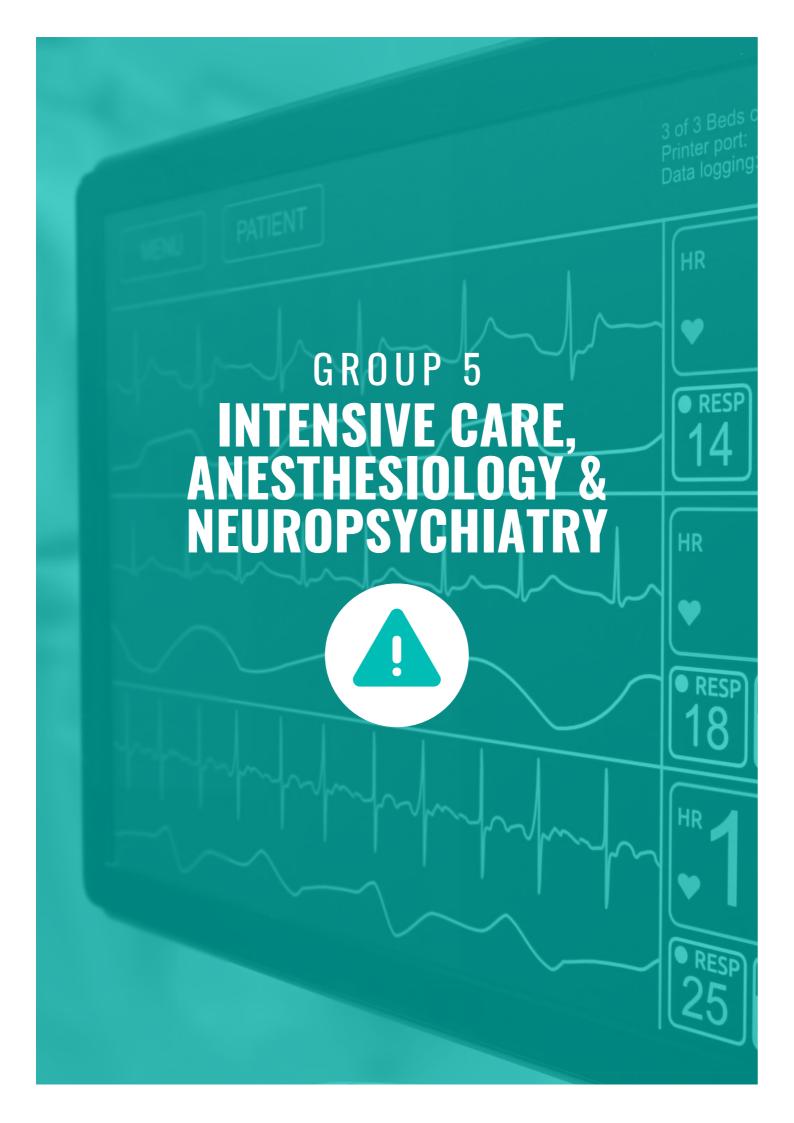
**PROJECT 2:** Continuous invasive remote monitoring in patients with heart failure compared to regular in-clinic follow-up: a systematic review and meta-analysis

# 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, 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





ZSOLT MOLNÁR Group Leader



ANDRÁS HORVÁTH Group Leader



Ή



MARIE ANNE ENGH Scientific Methodology Supervisor



PÉTER MÁTRAI Statistician

**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** HUS7ÁR

SEMMELWEIS UNIVERSITY, DEPARTMENT OF PSYCHIATRY AND PSYCHOTHERAPY



# **TOPIC**

Neuropsychiatry - Neurology

The cognitive decline will be avoidable by the widely used prevention programs.

#### MISSION

TOPIC

VISION

MISSION

patients.

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**

To implement new modalities to modify the

To unveil the details of the crosstalk between the

inflammatory response and hemostasis in critically ill

thromboinflammatory process by further elucidating the

FUNDENI CLINICAL INSTITUTE, DEPARTMENT OF ANESTHESIOLOGY, **BUCHAREST** 



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-

Project started: September 2021

# **PROGRESS LEVEL**

Completed

# **PUBLISHED ARTICLE(S)**

Intensive care - COVID-19

underlying mechanisms.

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



Neurology - Multiple sclerosis

To assist in planning further researches and selecting the most appropriate care in MS cognition.

To better understand the specific patterns of cognitive impairment in MS with the aim of improving the management of patients experiencing this condition.

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

PROJECT 1: Cognitive impairment in different

# **PROGRESS LEVEL**

Accelerator



AGE 33 years **EDUCATION** medical doctor SUPERVISOR(S) Gábor Lovas, Zsolt Illés mrkpavlekovics@gmail.com

# MÁRK PAVI FKOVICS

SEMMELWEIS UNIVERSITY, JAHN FERENC SOUTH-PEST HOSPITAL AND CLINIC



# **TOPIC**

Neurology - Myasthenia Gravis

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 SFBFSTYÉN

HEIM PÁL NATIONAL PEDIATRIC INSTITUTE



Anesthesiology - Perioperative care

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, goal-

directed fluid therapy (miGDFT) in patients undergoing pancreatic surgery: protocol of a multicentre randomised trial

Project started: October 2021

# **PROGRESS LEVEL**



AGE
35 years
EDUCATION
medical doctor
SUPERVISOR(S)
Zsolt Molnár,
Máté Rottler
E-MAIL
szabogvilmos@gmail.com



# **GERGŐ VILMOS** SZABÓ

SZENT GYÖRGY HOSPITAL. SZÉKESFEHÉRVÁR



#### TOPIC

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.

# **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

# PUBLISHED ARTICLE(S)

**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
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# **AMBRUS** S7FMFRF

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

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

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ANAESTHESIOLOGY AND INTENSIVE THERAPY



# TOPIC

Anesthesiology - COVID-19

# **VISION**

Implementing personalized strategies in intensive care medicine on a board scale, hence providing more effective and safer interventions.

# **MISSION**

To help disseminating scientific based medicine in anesthesiology 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



AGE 28 years **EDUCATION** medical doctor SUPERVISOR(S) Zsolt Molnár E-MAIL c.caner.turan@gmail.com



# **CANER TURAN**

SEMMELWEIS UNIVERSITY, ALUMNI DIRECTORATE



Anesthesiology - Hepatology

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



Orthopedics, traumatology - Pediatrics

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.

# **SPECIFIC GOALS**

PROJECT 1: The effect of robot-assited gait training on gross motor function in children with cerebral palsy: systematic review and meta-

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 metaanalysis

Project started: October 2021

# PROGRESS LEVEL

Individual

# **PUBLISHED ARTICLE(S)**

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



E-MAIL drvezermatyas@gmail.com

# GROUP 6 ORTHOPAEDICS & 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







ZSOLT MOLNÁR
Group Leader

ANDRÁS HORVÁTH

Group Leader





Supervisor



SZILÁRD VÁNCSA Scientific Methodology Supervisor



ALEXANDER S. WENNING Scientific Methodology Supervisor



GERGELY AGÓCS Statistician

**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

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



45 years **EDUCATION** medical doctor SUPERVISOR(S) György Szőke E-MAIL domosgy@gmail.com

# **GYULA DOMOS**

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS



#### TOPIC

Orthopedics, traumatology - Developmental hip dysplasia

To ensure the highest quality treatment for pediatric patients and to build one of the best pediatric orthopaedic centers in Europe.

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



**LUCA HERGÁR** 

SEMMELWEIS UNIVERSITY, DEPARTMENT OF ORTHOPAEDICS



Orthopedics, traumatology - Diagnostic investigations of wrist and hand conditions

Adequate diagnosis at the first doctor-patient interaction.

To evaluate the accuracy of diagnostic methods in hand surgery.

# **SPECIFIC GOALS**

PROJECT 1: Investigating the diagnostic accuracy of magnetic resonance imaging for lesions around the wrist: a systematic review and meta-analysis Project started: September 2021

PROJECT 2: Correlation of two-point discrimination and electroneurography in carpal tunnel syndrome: registry analysis Project started: April 2015

# **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

#### **VISIOI**

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 meta-analysis

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
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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
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drmatemiklos@gmail.com

# **MIKLÓS** 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



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

#### VISIO

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 metanalysis

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



AGE
32 years
EDUCATION
medical doctor
SUPERVISOR(S)
György Márk Hangody
E-MAIL
szocs.gyulaferenc@gmail.

# **GYULA FERENC SZŐCS**

SEMMELWEIS UNIVERSITY, DEPARTMENT OF TRAUMATOLOGY



# **TOPIC**

Orthopedics, traumatology - Knee surgery

#### VISION

Decrease the number of total knee arthroplasties in Hungary.

# MISSION

Increase the use of knee cartilage preserving practices.

# **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

# VISIO

A high-quality up to date professional foot surgery in Hungary.

# MISSIO

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
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# **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 meta-analysis

Project started: October 2021

# **PROGRESS LEVEL**

Completed



# 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 toptier 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



ANDREA PÁRNICZKY
Group Leader



MIKLÓS GARAMI Group Leader



RITA NAGY
Scientific Methodology
Supervisor



Scientific Methodology Supervisor



MÁRK HERNÁDFŐI Scientific Methodology Supervisor



TAMÁS KÓI Statistician

**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
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# **DORINA RITA** BAJZÁT

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.

# **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

# **PUBLISHED ARTICLE(S)**

**PROJECT 1:** Bajzát, DR. et al. (2023) Safety Analysis of Preoperative Anti-TNF-α 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



09/21

# **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



# AGE 31 years EDUCATION medical doctor SUPERVISOR(S) Attila Szabó, Péter Krivácsy E-MAIL garai.reka@ med.semmelweis-univ.hu

# **RÉKA** GARAI

SEMMELWEIS UNIVERSITY, FIRST DEPARTMENT OF PAEDIATRICS



# TOPIC

Pediatrics - Long COVID syndrome, Pediatric Emergency

# VISION

To give KINDNESS, CARE, COMFORT.

# **MISSION**

The fact and sensation of SAFETY is natural for our patients.

# 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

# **PUBLISHED ARTICLE(S)**

**PROJECT 1:** Garai, R. et al. (2022) Clinical assessment of children with long COVID syndrome *Pediatric Research*, **Q1**, **IF:** 3.600



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



# MÁRK VIKTOR HERNÁDFŐI

SEMMELWEIS UNIVERSITY, SECOND DEPARTMENT OF PAEDIATRICS



#### TOPIC

Pediatrics - Oncology and hematology

#### **VISION**

Improving survival and quality of life in pediatric oncology.

# **MISSION**

Define and improve the long-term socioeconomic effects of cancer treatment and research new therapeutical approaches.

# **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



AGE E-MAIL

# **ÁGOSTON** JÁNOSI

Pediatrics - COVID-19

HEIM PÁL NATIONAL PEDIATRIC INSTITUTE



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

# pandemic **MISSION**

**TOPIC** 

Acquiring a deeper understanding of research methods, hence increasing my knowledge in paediatric care.

A World with established ground rules in fighting a

# **PROGRESS LEVEL**

Project started: September 2021

Individual



janosi.agoston@gmail.com



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

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**



AGE
28 years
EDUCATION
medical doctor
SUPERVISOR(S)
Ákos Gasparics
E-MAIL
kingakovacs3@gmail.com

# KINGA KOVÁCS

SEMMELWEIS UNIVERSITY, DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY



# TOPIC

Pediatrics - Neonatology

#### VISION

The focus in neonatal care should be on eliminating as many complications of prematurity as possible.

# **MISSION**

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 analysis

Project started: September 2022

# **PROGRESS LEVEL**

Completed



AGE
26 years
EDUCATION
physiotherapist
SUPERVISOR(S)
Mónika Horváth
E-MAIL
lukacsadriennanna@gmail.com

# **ADRIENN ANNA LUKÁCS**

SEMMELWEIS UNIVERSITY, FACULTY OF HEALTH SCIENCES



# **TOPIC**

Pediatrics - Physiotherapy

#### VISION

Providing profession specific, relevant, scientific information.

# MISSION

To improve pediatric physiotherapeutic care among MIS-C children.

# **SPECIFIC GOALS**

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



# GROUP 8 GASTE

# **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



**BÁLINT ERŐSS**Group Leader



KRISZTINA HAGYMÁSI



ANETT RANCZ
Scientific Methodology

Supervisor





ESZTER ÁGNES SZALAI Scientific Methodology Supervisor







DÁNIEL VERES Statistician

**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
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# **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**

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

# **PROGRESS LEVEL**

Project started: October 2021

Individual



AGE
28 years
EDUCATION
dietetian
SUPERVISOR(S)
Katalin Földváriné Lenti,
László Földvári-Nagy
E-MAIL
elias.anna.julia@gmail.com

# ANNA JÚLIA ÉLIÁS

SEMMELWEIS UNIVERSITY, FACULTY OF HEALTH SCIENCES



# **TOPIC**

Gastroenterology - Probiotics

#### VISION

Probiotics - Specification of evidence-based and applicable recommendations, personalised medicine.

#### MISSION

Understand the role of the human gut microbiome in health and disease, consequences of treatments.

# **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



08/23



AGE
29 years
EDUCATION
medical doctor
SUPERVISOR(S)
Bálint Erőss
E-MAIL
marieaengh@gmail.com





# **MARIE ANNE ENGH**

SEMMELWEIS UNIVERSITY, CENTRE FOR TRANSLATIONAL MEDICINE



# **TOPIC**

Gastroenterology - Diagnostic methods in pancreatic cancer

# VISION

Improved diagnostics of pancreatic cancer that lead to better outcomes for the patients.

# **MISSION**

Contribute to clearer guidelines for more efficient diagnostics of pancreatic cancer.

# 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**



30 years
EDUCATION
medical doctor
SUPERVISOR(S)
Nóra Hosszúfalusi
E-MAIL
kov.adri15@gmail.com

**AGE** 

# **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.

# **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

# **PUBLISHED ARTICLE(S)**

**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



AGE
27 years
EDUCATION
medical doctor
SUPERVISOR(S)
Bálint Erőss
E-MAIL
obeidat.mahmoud96@
gmail.com



07/23



11/22

# MAHMOUD OBFIDAT

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

# **PROGRESS LEVEL**

Project Started: April 2022

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



AGE
36 years
EDUCATION
medical doctor
SUPERVISOR(S)
Bálint Erőss
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dr.d.palinkas@gmail.com

# **DÁNIEL** PÁLINKÁS

HUNGARIAN ARMY MEDICAL CENTRE, DEPARTMENT OF GASTROENTEROLOGY



# **TOPIC**

Gastroenterology - Gastrointestinal bleeding

# VISION

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



**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

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.

# **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

# **PUBLISHED ARTICLE(S)S**

PROJECT 1: Rancz, A. et al. (2023) Microscopic colitis is a risk factor for low bone density: a systematic review

Therap Adv Gastroenterol, Q1, IF: 4.802

and meta-analysis

# **OLGA JULIA ZAHARIEV**

SEMMELWEIS UNIVERSITY, CENTRE FOR PANCREATIC DISEASES



# **TOPIC**

Gastroenterology - Diabetes mellitus

A world where preventable diabetes mellitus is prevented.

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**





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.

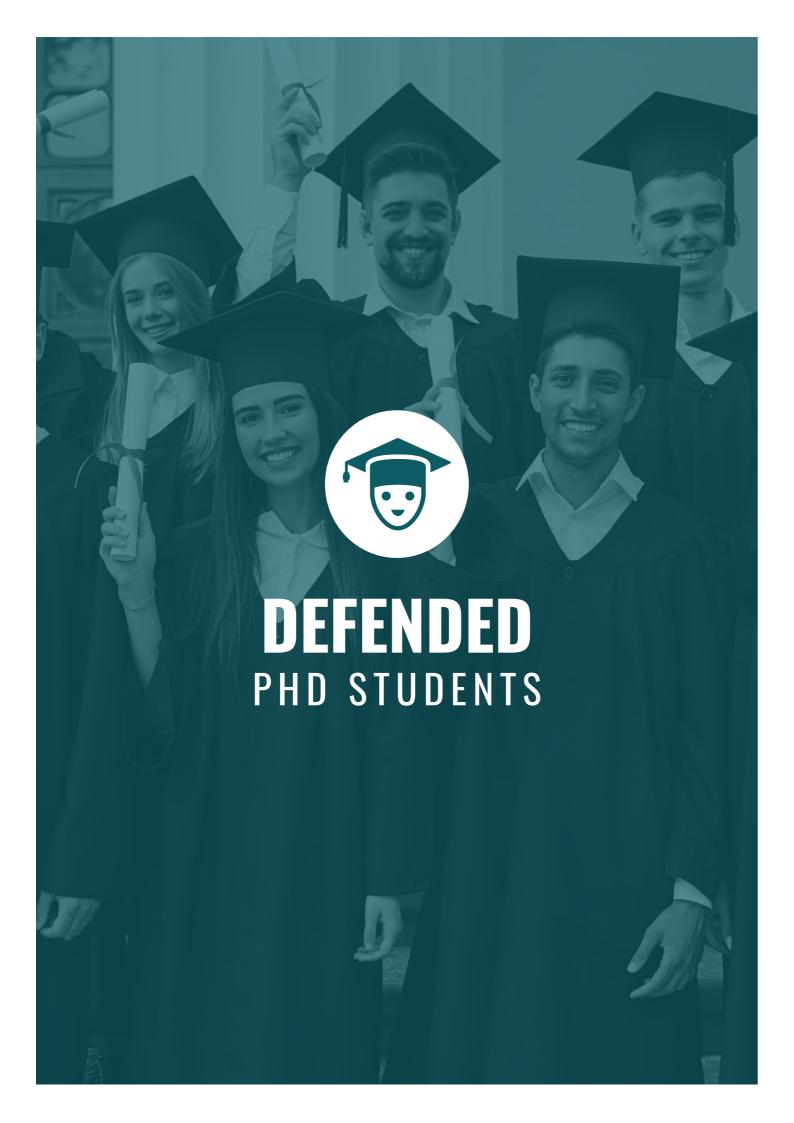












Following the launch of TM in Hungary in 2016, **37 PhD thesis** was carried out with the interdisciplinary support of CTM.

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	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	



D1: 1

Q1: 5

Q2: 1

Q3: 0

Q4: 0

Comulative IF: 42,869

First author IF: 8,69

PATRIK KÉRINGER

Date of dissertation: 2022

University of Pécs

inside

University:

Type of PhD:

No. of articles:

7	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 SZII 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	<b>BÁLINT TRIMMEL</b> University: Type of PhD: Date of dissertation: No. of articles:	Semmelweis University outside 2021 6	D1: 1 Q1: 3 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 20,354 First author IF: 9,6	回紀禄 回 京都 後春秋秋 回入茶春
13	ANIKÓ NAGY University: Type of PhD: Date of dissertation: No. of articles:	University of Szeged outside 2021	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 DEN 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 WUTTA University: Type of PhD: Date of dissertation: No. of articles:	APON Semmelweis University outside 2022 4	D1: 0 Q1: 3 Q2: 1 Q3: 0 Q4: 0	Comulative IF: 16,393 First author IF: 3,116	
20	<b>BÁLINT ERŐSS</b> 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 MOSZTBAC University: Type of PhD: Date of dissertation: No. of articles:	CHER University of Szeged outside 2020 14	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 2020 9	D1: 0 Q1: 7 Q2: 2 Q3: 0 Q4: 0	Comulative IF: 29,546 First author IF: 6,969	
24	ESZTER GARAMII University: Type of PhD: Date of dissertation: No. of articles:	NÉ PÁKAI University of Szeged outside 2020 14	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:	LA PESEI University of Szeged outside 2023 4	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:	CTONOSI University of Szeged inside 2023 10	D1: 2 Q1: 2 Q2: 2 Q3: 2 Q4: 0	Comulative IF: 25,409 First author IF: 8,76	

35	ANNA NÓRA KAN University: Type of PhD: Date of dissertation: No. of articles:	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	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	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

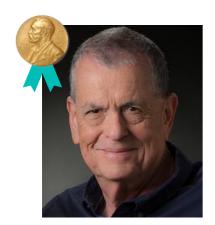
## **TITLE OF THE LECTURE**Some lessons from a life in science

**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.





### **LEARNING BY DOING**

# **CONTACT US**

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