

25/26

SUMMER SCHOOL ADVANCED PROGRAM

OF THE CLINICAL TRANSLATIONAL PROGRAMS

Join our high quality educational program to learn the methods of translational medicine.



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TMFoundationHQ



transmedkozpont



PROGRAM SUMMARY

BASIC INFORMATION ABOUT THE PROGRAM

ONE SCHOOL FIVE COURSES

AT THE END OF THIS SUMMER SCHOOL, THE PARTICIPANTS WILL BE ABLE TO

- Acquire knowledge in translational medicine
- Critically appraise the scientific literature
- Understand the main modern clinical scientific methodologies
- Perform healthcare delivery science
- Conduct independent research work

| WINTER EDITION 2025 | | | | | |
|----------------------|---------------------|---------------|-----------------------|-------------------------|--|
| Application deadline | Interview period | Acceptance by | Course fee payment by | Course period (4 weeks) | |
| December 1 | December 2-6 | December 6 | December 14 | Jan 20 - Feb 14 | |

| SUMMER EDITION 2025 | | | | | |
|----------------------|---------|-------|--------|-----------------|--|
| Application deadline | | | | | |
| May 5 | May 6-9 | May 9 | May 16 | Jun 16 - Jul 11 | |

COURSE DIRECTOR

Péter Hegyi, MD, PhD, DSc, MAE

ORGANISERS

The **SUMMER SCHOOL** is organized jointly by the **Centre for Translational Medicine**, Semmelweis University and the Translational Medicine Foundation.

TUITION FEES

Application fee: 75 € / person or 350 € / group

COURSE FEE STARTING FROM 1800 €



INTRODUCTION

OF THE COLLABORATING INSTITUTES



SEMMELWEIS UNIVERSITY

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.

TRANSLATIONAL MEDICINE FOUNDATION

- Apply scientific results and innovations in healthcare.
- Facilitate data exchange between universities, hospitals, and research centers to improve multicenter research quality and efficiency.
- Help the public and professionals implement evidence-based knowledge through various platforms.
- Organize conferences, training, and provide support for research services and human resource selection.

THE HISTORY

OF TRANSLATIONAL MEDICINE IN HUNGARY



The **Translational Medicine (TM)** "learning by doing" education model was launched at Hungary University of Pécs in 2016 under the leadership of Péter Hegyi, who is the course director of this uniquely developed **SUMMER SCHOOL**. In the past five years, almost 50 PhD students and residents have participated in our programs. In this period, more than 300 high-quality publications have been published through scientific research and translational patient care initiated and supported by the **Translational Medicine Foundation**, the University of Pécs, the University of Szeged, and the Semmelweis University (*Nature Medicine*). The results have made it possible to develop and supplement a number of treatment guidelines and to immediately apply scientific results in patient care.

Semmelweis University (SU) aims to rank among the best universities in the world and recognize the importance and the high potential of translational medicine. Therefore, in 2021, this program was invited to function on a much bigger scale than before, now under the umbrella of Semmelweis University. As a result, the training at SU already enrolled more than 340 PhD students and almost 100 undergraduate research students.

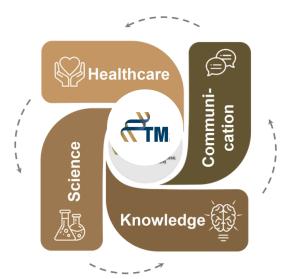
THE IMPORTANCE OF TRANSLATIONAL MEDICINE

The key goal of **Translational Medicine (TM)** is to transform scientific discoveries into tangible benefits for communities. This is crucial because scientific findings are currently underutilized in everyday medical practice, limiting their potential to save lives. In 2016, 1.7 million people under the age of 75 died in Europe, **and 1.2 million of these deaths could have been prevented** with effective public health interventions and better use of medical research.

Recognizing this, **Academia Europaea** launched a groundbreaking project in 2018 to speed up the application of scientific knowledge for the public good. Leading researchers, journal editors, and academic experts came together to develop the TM cycle—a model designed to close the gap between science and clinical practice. The **TM cycle** focuses on generating new scientific insights, making them accessible to healthcare providers, and communicating them effectively to the broader public. This approach aims to deliver more efficient, cost-effective healthcare—and that's where our summer school comes in.

By attending this program, you'll gain hands-on experience with the TM cycle, learning how to apply cutting-edge research directly to patient care. You'll work alongside international experts, growing your professional network and contributing to the future of global healthcare innovation. Join us to help make a real-world impact by transforming research into life-saving solutions.

Don't miss the chance to join the movement to improve healthcare for everyone!



SUMMER SCHOOL PROGRAM

WHAT WE OFFER

The **SUMMER SCHOOL** mainly focuses on the second and third steps of the TM cycle. The program helps students to become critical consumers of medical research papers, to gather primary data on health issues through questioning and observation, and to conduct biomedical research. Students will gain an understanding of the planning of clinical research, including systematic reviews, patient registries, and clinical trials, by designing and extending projects in study groups, which are led by experienced members of the TM Centre.

THE THREE PILLARS OF THE PROGRAM

HARD SKILL

SOFT SKILL

BIOSTATISTICS

THE SUMMER SCHOOL FOCUSES ON THE MAIN MODERN HEALTHCARE DELIVERY SCIENTIFIC METHODOLOGIES OF TM

- **1. Systematic Reviews and Meta-Analysis:** Learn the essentials of meta-analyses and their role in evidence-based medicine, including designing systematic search strategies, reading forest plots, and assessing the validity of findings.
- **2. Patient Registries:** Explore the practical aspects of developing and managing patient registries, from planning and IT infrastructure to data management, ethical approvals, and publication.
- **3. Clinical Trials:** Gain an overview of experimental study designs, focusing on study planning, randomization, bias, and interpreting cause-effect relationships in clinical research.
- **4. Biostatistics:** Understand the basics of statistical methods in medical sciences, including hypothesis testing, survival analysis, and ROC curve analysis to better interpret scientific data.
- **5. Soft Skills in Clinical Research:** Focus on critical soft skills such as time management and presentation skills, which are essential for effective clinical research and professional development.

KEY OUTCOMES

- Learn core concepts of healthcare delivery science and translational medicine.
- Gain practical experience in setting up patient registries, clinical trials, and systematic reviews.
- Master formulating clinical questions and sourcing reliable evidence using the PICO model.
- Critically appraise clinical research using evidence-based methods.
- Develop essential soft skills like time management, communication, and presentation.

SCHEDULE AND CLASSES

Please note that the daily schedule is subject to adjustments as needed to enhance the learning experience. We will inform participants in advance of any changes to ensure a smooth and flexible course flow.

| SYSTEMATIC REVIEWS AND META-ANALYSIS | | | | | | |
|--------------------------------------|---------------------------|-------------------------|-----------------------|-------------------------|---------------------------|--|
| GMT+1 | MON | TUE | WED | THU | FRI | |
| 8:00 | Course introduction | E-learning introduction | Types of | E-learning introduction | | |
| 9:00 | Translational Medicine | E-learning | systematic reviews | | Data types and extraction | |
| 10:00 | Introduction | | Framing your research | | | |
| 11:00 | to the main courses | | question | E-learning | Data analysis | |
| 12:00 | | | | | Data allalysis | |
| 13:00 | | | Search and selection | | Article writing | |
| 14:00 | | | | | Article Writing | |

| BIOSTATISTICS | | | | | |
|----------------|------------------------------------------|-------------------------------------|-----------------------------|---------------------------|--|
| GMT+1 | MON | TUE | WED | THU | |
| 8:00 | Course and e-learning introduction | Data types | Statistics in meta-analysis | Data types and extraction | |
| 9:00 | | Probability | | | |
| 10:00 | E-learning | Descriptive statistics | E-learning | Data analysis | |
| 11:00 | | Parametric and non-parametric tests | | | |
| 12:00 | | Comparing qualitative data | | Interpreting results | |
| 13:00 | | Correlation analysis | | | |
| 14:00 15:00 | | Q&A | | Q&A | |

PATIENT REGISTRIES

| GMT+1 | MON | TUE | WED | THU |
|-------|---------------------|-------------------------------------------|---------------------|------------------------------------------------|
| 8:00 | Course introduction | The purpose and rationale of the registry | Course introduction | Running and analyzing a patient registry |
| 9:00 | E-learning | Structured data collection | | Patient enrollment |
| 10:00 | | | | Feasibility, exploratory data analysis |
| 11:00 | | Bias in registry | E-learning | Descriptive |
| 12:00 | | analysis | | statistics |
| 13:00 | | Ethical approval | | Article writing |
| 14:00 | | Resources | | Article Writing |
| 15:00 | | Q&A | | Q&A |

CLINICAL TRIALS

| GMT+1 | MON | TUE | WED | THU |
|-------|---------------------|---------------------------------|---------------------|----------------------------------------|
| 8:00 | Course introduction | Clinical research types | Course introduction | Maintaining a study, quality assurance |
| 9:00 | | Observation studies and bias | onal E-learning | Closure of a clinical study |
| 10:00 | | | | Data types and analysis |
| 11:00 | | Interventional studies and bias | | |
| 12:00 | E-learning | | | |
| 13:00 | | | | |
| 14:00 | | Ethical considerations | | Article writing |
| 15:00 | | Q&A | | Q&A |

APPLICATION HOW TO JOIN OUR PROGRAM





COURSE INFORMATION

TARGET AUDIENCE

- Degree/ studies in health sciences (Candidate, BSc, MSc, MD, DMD, etc.) is preferred.
- Good English communication skills are recommended (minimum B2 level; see details here).

PARTICIPANT LIMIT

To preserve efficacy, the course will start with a minimum of 12 attendees.

STUDY LOAD

8 hours of course and 1 hour of lunch break per day. Each day, the course starts at 8 AM (GMT+1)

REOUIRED DOCUMENTS

For this course, you are required to upload the following documents when applying:

- Motivation Letter
- CV

Application with proof of application fee payment must be submitted by the application deadline. In case of transfer difficulties, an electronic certificate is acceptable.

IMPORTANT DATES

- Deadline for application December 1, 2024 / May 5, 2025
- Interview period December 2-6, 2024 / May 6-9, 2025
- Acceptance by December 6, 2024 / May 9, 2025
- Course fee payment by December 14, 2024 / May 16, 2025
- Course period (4 weeks) Jan 20 Feb 14, 2025 / Jun 16 Jul 11, 2025

RESPONSIBILITIES OF THE CENTRE FOR TRANSLATIONAL MEDICINE

The Centre will provide access to the training materials in case of successful recruitment, but this does not cover the technical requirements for access, in particular a stable internet connection and computer equipment. The application fee covers the costs of the application procedure, and the Centre does not undertake to reimburse the costs of unsuccessful applications. Students who are successfully admitted will be offered a training contract by the Centre. Hungarian law will apply to the application process and the training as a whole.

FINANCING INFORMATION

COSTS

- Application fee: 75 € / person
- In case of group registration larger than 10 participants 350 € / group
- Course fee (in case of in-person participation):
 - 12-25 participants: 2400 € / person
 25-40 participants: 2200 € / person
 41-60 participants: 2000 € / person
 - o 61 or more participants: 1800 € / person
- 20% discount in case of online participation
- +20% in case of a different time period (in case of 12+ participants)

Students are expected to cover:

- Round trip air transportaion
- Health insurance
- · Medical liability insurance
- Living expenses
- Cost of general medical examination and vaccines

PAYMENT

After you completed the registration form **here**, you will receive the payment details via e-mail.



IT ASSISTANCE

IMPORTANT HELP



In case of online course, Zoom will serve as our online communication platform. To ease the use of the software, our admin will be there to provide help where needed.

What you are going to need:

- Zoom account
- Stable internet connection

Please arrive to the Zoom meetings **20 minutes prior** to the session time.

Security is a key aspect of Zoom meetings, so for your safety a passcode will be sent alongside the classes' link. Also, there will be other measurements adding an additional layer of security, for example preventing you from unmuting or renaming yourselves during a lesson, in order to limit distractions.

Never share your meeting ID or passcode publicly (such as on social media).



CONTACT US

FOR MORE INFORMATION

Should you need any further information, please do not hesitate to contact us! Also feel free to check out our and our partner's online content as well.

ORGANIZATION NAME

Semmelweis University, Centre for Translational Medicine

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OUR WEBSITES

tm-centre.org, semmelweis.hu/tmk

YOUTUBE CHANNEL

Translational Medicine Foundation

NATIONAL ACADEMY OF SCIENCES

edu-sci.org

ACADEMIA EUROPAEA

ae-info.org









LEARNING BY DOING

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