SEMMELWEIS
UNIVERSITY 1769

SEMMELWEIS FOR GLOBAL HEALTH

Photon Counting CT Academy

CLINICAL IMPACT & HANDS-ON TRAINING

SEMMELWEIS UNIVERSITY
Budapest, Hungary

November 4-7, 2026

Organizer: Semmelweis University, Medical Imaging Centre
International Relations and Alumni Affairs
Venues: Semmelweis University
Anatomy & Innovation Center for Education and Research &
Medical Imaging Centre

WHO WE ARE
About Semmelweis University

SEMMELWEIS UNIVERSITY IN WORLD RANKINGS

Times Higher Education Rankings by Subject 2026
Medical and Health TOP 176-200

THE World University Rankings 2026
TOP 251-300

Shanghai Ranking 2025
Pharmacy & Pharmaceutical Sciences TOP 51-75
Clinical Medicine TOP 151-200

US News Best Global Universities 2025
Cardiac and Cardiovascular Systems #35
Clinical Medicine #181

EDUCATION, RESEARCH, AND HEALTHCARE

Semmelweis University was **founded in 1769**, more than 250 years ago. Today Semmelweis University is one of **the leading medical higher education institutions**, **healthcare providers,** and centers of research excellence in Hungary and Central Europe.

With its six faculties and a Doctoral College, the University covers all aspects of medical and health sciences education, offering a wide range of programs from undergraduate to doctorate level in three languages: Hungarian, English, and German.

International students from around the world choose Semmelweis University to acquire hands-on, competitive knowledge from distinguished professors in an environment equipped with state-of-the-art technology.

Semmelweis University is widely known for its strong emphasis on a balanced ratio of **theoretical knowledge and practical skill development in the field of medicine and health sciences.**

Our **more than 40 patient care units** provide the perfect environment for students to develop their practical skills, enabling them to become future-proof health professionals.

The international **short courses and intensive training programs** offer a unique opportunity for students and professionals to get an insight into Semmelweis University's international education, scientific and patient care activities, and also gain valuable professional and cultural experiences.

We are looking forward to welcoming international students for our short courses and training programs in Budapest, Hungary!

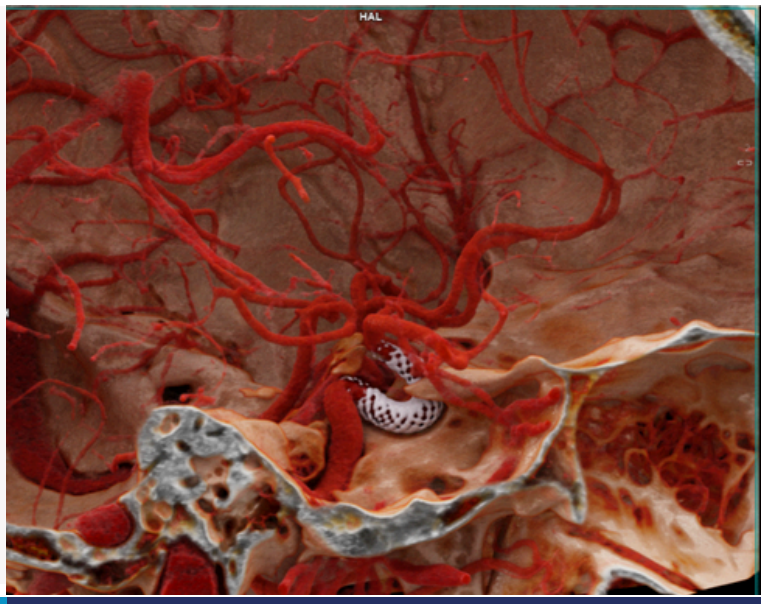
Dr. Tamás Hegedüs
Director of International Relations and Alumni Affairs

Find out more about Semmelweis University here.

WHAT WE OFFER

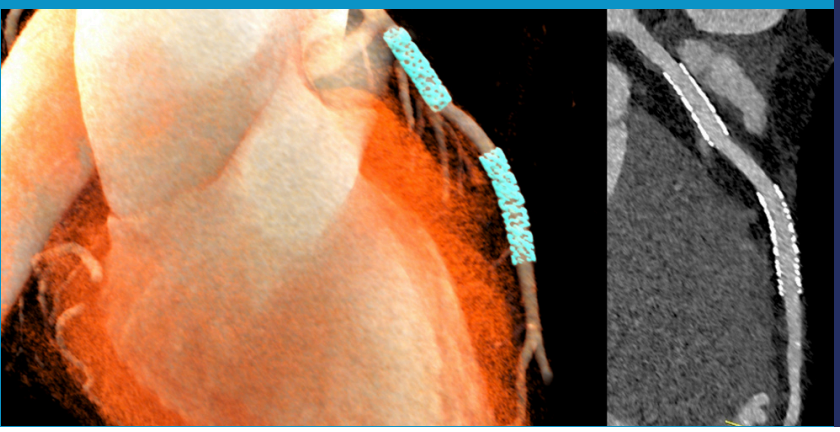
About the course

The Photon-Counting CT Academy is a **unique four-day, case-based educational meeting** designed for radiologists, cardiothoracic imagers, neuroradiologists, musculoskeletal imagers, residents, and other healthcare professionals seeking to implement or expand **photon-counting CT (PCCT) in clinical practice.** The course also addresses the needs of referring clinicians who request PCCT examinations across abdominal, neuro, musculoskeletal, and cardiothoracic imaging - with a strong emphasis on **real-world applications** of this transformative technology and its impact on patient management across specialties.



Why attend

Through dedicated sessions covering all four imaging domains, the expert faculty of Semmelweis University - with more than five years of hands-on PCCT experience - will demonstrate how this technology is reshaping routine workflows, enabling protocol optimization, and advancing spectral and quantitative imaging. Interactive case discussions will deliver practical insights, address common pitfalls, and highlight the added diagnostic value of PCCT in oncology, vascular disease, coronary artery disease, and structural heart disease, while also exploring future developments and research opportunities.



What you will gain

By the end of the workshop, participants will be able to:

- Explain the fundamental principles of photon-counting CT and distinguish it from conventional energy-integrating detector systems.
- Develop and optimize PCCT protocols for abdominal, neuroradiological, musculoskeletal, and cardiothoracic imaging, including key workflow considerations.
- Interpret spectral and quantitative data generated by PCCT and evaluate its clinical relevance in oncologic, vascular, and trauma imaging.
- Review real-world PCCT cases, identifying characteristic imaging findings, added diagnostic value, and common pitfalls.
- Discuss practical strategies and future directions for initiating or expanding a PCCT program within their own institution.

SCHEDULE
Day 1

4 NOVEMBER, 2026, WEDNESDAY DAY 1: BASICS OF PCCT: PHYSICS AND PROTOCOLS		
13:00-13:15	Welcome to the Semmelweis University Medical Imaging Centre	Prof. Dr. Pál Maurovich Horvat
Block 1 – Physics of PCCT: Basics & Protocols & Products Chair: Dr. Bernhard Schmidt		
13:15 - 14:00	Physics of PCCT: From Technology to Clinical Practice	Dr. Bernhard Schmidt
14:00 – 14:30	Future directions: Industry lecture	Siemens Healthineers
14:30-14:45	**Coffee break**	
14:45 - 15:45	Workflow considerations and tips for starting your PCCT program: Tips and Protocols	Dr. István Kóbor PhD
15:45 – 16:00	**Discussion**	
16:00 – 17:00	Live scanning: Cardiac Imaging	
17:15 – 18:00	Live scanning: Emergency Medicine	

SCHEDULE
Day 2

5 NOVEMBER, 2026, THURSDAY DAY 2: APPLICATIONS OF PCCT IN ABDOMEN/ONCOLOGY · NEUROIMAGING		
Block 2 - Abdominal and Oncologic Applications of PCCT: Foundations & Protocols Chair: Dr. Ibolyka Dudás		
8:00-8:30	Abdominal Photon Counting CT: Protocols in clinical practice, spectral Imaging	Dr. Ibolyka Dudás
8:30-9:15	Clinical application of PCCT in abdominal diseases: Tricks and Tips	Dr. Ibolyka Dudás
9:15-10:30	Read with the experts: Hands-on case-based discussion of challenging abdominal and oncological cases	Faculty
10:30-10:45	**Coffee break**	
10:45 - 11:30	Acute abdomen: Emergency applications of PCCT in the abdomen	Dr. Péter Hegedűs
11:30 - 12:00	Vascular evaluation in transplantation by PCCT	Dr. Zsuzsanna Lénárd
12:00 - 13:30	Read with the experts: Challenging acute abdominal & transplant cases	Faculty
13:30-14:30	**Lunch break**	
Block 3 - Neuroradiology Applications of PCCT Chair: Dr. Gábor Szudi		
14:30-15:00	Photon-counting detector CT for the follow-up evaluation of treated intracranial aneurysms	Dr. Gábor Szudi
15:00-16:00	Read with the experts: Challenging neurologic cases	Faculty
16:00-16:15	**Coffee Break**	
16:15-16:45	ENT and oro-maxillofacial surgery Applications of PCCT	Dr. Gergely Kiss
16:45-18:00	Read with the experts: Challenging ENT & oro-maxillofacial surgery cases	Dr. Gergely Kiss
19:00-22:00	**Dinner with all participants**	

SCHEDULE
Day 3

6 NOVEMBER, 2026, FRIDAY DAY 3: APPLICATIONS OF PCCT IN MUSCULOSKELETAL AND CARDIOVASCULAR DISEASES		
Block 4 - Applications of PCCT in MSK Imaging Chair: Dr. Nikolett Marton		
8:00-8:30	Musculoskeletal applications of PCCT: Tips and tricks and workflow	Dr. György Gulácsi
8:30-9:15	Spectral imaging with photon-counting CT: Principles and MSK applications	Dr. Nikolett Marton
9:15-09:30	**Coffee break**	
9:30-11:00	Read with the experts: Challenging MSK and trauma cases	Faculty
11:00-12:00	**Lunch break**	
Block 5 - PCCT and Coronary Artery Disease Chair: Prof. Dr. Pál Maurovich Horvat		
12:00-12:45	Cardiovascular applications of PCCT: Tips and tricks and workflow	Dr. Lili Száraz
12:45-13:30	Plaque quantification and stents	Dr. Milán Vecsey-Nagy
13:30-14:30	Read with the experts: Challenging CV cases	Faculty
14:30-14:45	**Coffee break**	
14:45-15:15	PCCT, myocardial characterization, and stress perfusion	Dr. Bálint Szilveszter
15:15-15:45	Vascular imaging	Dr. Ádám Jermendy
15:45-18:00	Read with the experts: Challenging CV cases	Faculty

SCHEDULE
Day 4

7 NOVEMBER, 2026, SATURDAY DAY 4: APPLICATIONS OF PCCT IN CHEST DISEASES		
Block 6 - Applications of PCCT in chest imaging Chair: Dr. Dávid L. Tárnoki, Dr. Ádám D. Tárnoki		
8:00-8:45	PCCT applications in lung imaging: From thromboembolic disease to interstitial lung disease: Tips and tricks and workflow	Dr. Dávid L. Tárnoki, Dr. Ádám D. Tárnoki
8:45-09:15	PCCT applications in acute chest imaging	Dr. Péter Hegedűs
9:15-9:30	**Coffee break**	
9:30-11:00	Read with the experts: Challenging thoracic cases	Faculty
11:00-11:15	**Coffee break**	
PCCT image interpretation quiz, interactive case discussion Chair: Dr. Gergely Kiss, Dr. Dávid L. Tárnoki, Dr. Ádám D. Tárnoki		
12:00-12:15	Future perspectives of PCCT	Prof. Dr. Ákos Varga-Szemes

LECTURERS

Course Directors

Prof. Dr. Pál Maurovich Horvat, MPH

Director, Medical Imaging Centre

Dr. Dávid L. Tárnoki

Head of Nuclear Medicine Department, Medical Imaging Centre

Prof. Dr. Ákos Varga-Szemes

Director of Cardiovascular Imaging Research, Medical University of South Carolina, USA

Faculty

Dr. Ibolyka Dudás

Department of Radiology, Medical Imaging Centre

Dr. György Gulácsi

Department of Radiology, Medical Imaging Centre

Dr. Péter Hegedűs

Vice Director, Medical Imaging Centre

Dr. Ádám Jermendy

Head of CT Department, Heart and Vascular Centre

Dr. Gergely Kiss

Head of CT department, Department of Radiology, Medical Imaging Centre

Dr. István Kóbor PhD

Lead assistant, Department of Radiology, Medical Imaging Centre

LECTURERS

Dr. Zsuzsanna Lénárd

Department of Radiology, Medical Imaging Centre

Dr. Nikolett Marton

Department of Radiology, Medical Imaging Centre

Dr. Bernhard Schmidt

Head of CT Physics, Innovation and Global Collaboration, Siemens Healthineers

Dr. Lili Száraz

Department of Radiology, Medical Imaging Centre

Dr. Bálint Szilveszter

Heart and Vascular Centre

Dr. Gábor Szudi

Deparment of Neuroradiology, Medical Imaging Centre

Dr. Ádám D. Tárnoki

Department of Radiology, Medical Imaging Centre

Dr. Milán Vecsey-Nagy

Heart and Vascular Centre

JOIN THE PROGRAM
Application & Registration

APPLICATION PROCESS

1. APPLICATION & REGISTRATION

- Interested participants are required to complete their registration via our online registration platform. Registration is only considered valid upon successful payment.

2. PAYMENT

- The course fee can be paid immediately upon registration through our SimplePay online payment system.

3. COURSE FEE

- 1650 EUR / person

4. PAYMENT DEADLINE

- October 1, 2026

Course fee:

1650 EUR / person

VENUE

Semmelweis University

- Presentations & Interactive PCs: Anatomy & Innovation Center for Education and Research, 93 Üllői street, 1091 Budapest
- PCCT Practice: Medical Imaging Centre, 2 Koranyi Sandor street, 1083 Budapest

SEMMELWEIS

INTERNATIONAL

RELATIONS | MOBILITY | PROGRAMS

CONTACT

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Find more information about the Directorate HERE.