



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



SEMMEWEIS 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



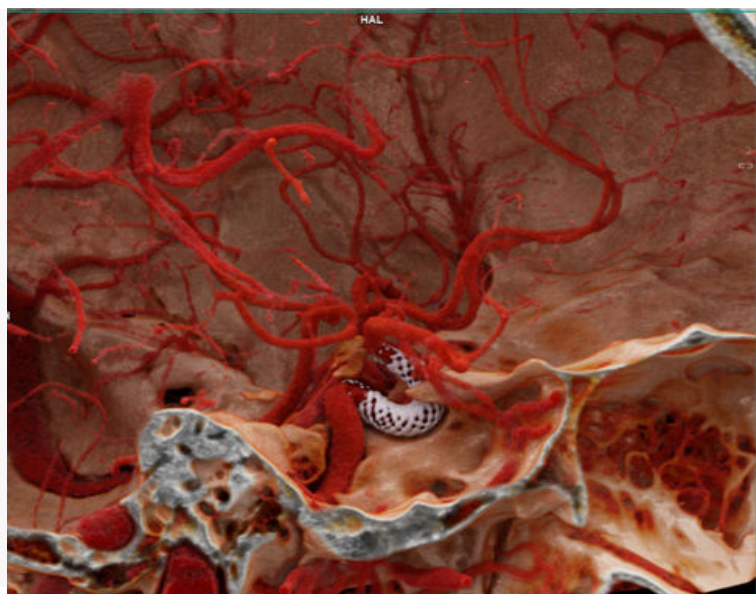
Find out more about Semmelweis University [here](#).

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. Bernard Schmidt		
13:15 - 14:00	Physics of PCCT: From Technology to Clinical Practice	Dr. Bernard 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



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. Bernard 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

Department 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](#).