



STUDENTS & PROJECTS

learning by doing

2020
2021

Introduction

In September 2020, **16 research fellows started their scientific career** in the Centre for Translational Medicine, University of Pécs in clinical and basic research PhD programs. This brochure aims to describe the research projects in which the fellows are working.

Support and supervision

Clinical scientific supervisor: a senior clinician (expert) who raises relevant clinical questions, determines the direction of the research and bridges the gap between the theoretical and clinical work in the clinical PhD program.

Basic research supervisor: a senior research fellow (expert) who raises relevant basic research questions, determines the direction of the research and ensures that the methodology used in the basic research PhD program meets the international standards.

Educational supervisor: an expert in pathophysiology who provides support in academic education.

Scientific methodology supervisor: a methodologist who has experience in designing and carrying out translational research projects and provides methodological support in various aspects of science including meta-analyses, patient registries, and clinical trials.

Research fellows are offered to participate in 6-, 12-, and 24-month scientific education. The projects are managed by study groups which consist of at least a **junior fellow** and a **senior fellow** and which perform research on a specific field of medicine (e.g., Hungarian Pancreatic Study Group). A research fellow can participate in multiple study groups with different projects. There are also **meta-analyses**, **patient registries**, **clinical trials**, and **basic research projects** in which the research fellow is the principal investigator (first author).

Below you can see the meaning of the colors, which are shown by each students profile.



the chosen length of the students scientific education



the number of patient registries



in how many study groups does the student participate



the number of clinical trials



the number of meta-analyses



the number of basic research projects



Péter Hegyi
Strategic Director



Bálint Erőss
Medical Group Leader



Márta Balaskó
Educational Director



Zsolt Szakács
PhD Programme Director

AHMED ALAN ABADA

months

12



3

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Age: 28 years

Former institution:

Department of Anaesthesiology and Intensive Care, Pécs, Hungary

Clinical scientific supervisor:

Tihamér Molnár

Scientific methodology supervisor:

Márk Félix Juhász

Educational supervisor:

Margó Solymár

Study groups:

Hungarian Stroke Study Group, Hungarian Anaesthesiology Study Group, Hungarian Intensive Care Study Group

E-mail:

alan.abada@gmail.com

Alan is a PhD student at the Department of Anaesthesiology and Intensive Care in Pécs, Hungary, participating in a 12-month clinical fellowship programme at the Institute for Translational Medicine. His main focus of interest is neuro-intensive care and he is taking part in a registry of patients with stroke. He is currently working on a cohort analysis of such patients, aiming to describe an association between periprocedural hemodynamic parameters and clinical outcomes in patients with acute ischemic stroke receiving endovascular treatment under general anesthesia versus conscious sedation. He recently started a meta-analysis of randomized controlled trials, examining the efficacy magnesium regarding neuroprotection in newborns with hypoxic-ischemic encephalopathy. Aside from teaching German pathophysiology in our institute, Alan also teaches for the Anaesthesiology and Intensive Care Department in both the English and German language programme.

EXPECTED DEADLINES

Cohort analysis submission: November 2020

Meta-analysis submission: January 2021

ESZTER BOROS

months

12



Age: 31 years

Former institution:

Semmelweis University, Budapest, Hungary

Clinical scientific supervisor:

Bálint Erőss

Scientific methodology supervisor:

Szilárd Váncsa

Study groups:

Hungarian GI Bleeding Study Group

E-mail:

boroseszter987@gmail.com

Eszter is participating in a 12-month resident fellowship programme. She is currently working on an interventional meta-analysis with regards to the management of non-variceal upper gastrointestinal bleeding, especially focusing on prophylactic transarterial embolization. The other main goal of hers is to participate in the operation of the gastrointestinal bleeding registry and to conduct a cohort analysis on the rebleeding risk of peptic ulcer disease.

EXPECTED DEADLINES

First meta-analysis submission: April 2021

Cohort analysis submission: May 2021

STEFANIA BUNDUC

months

12



Age: 30 years

Former institution:

Fundeni Clinical Institute, Bucharest, Romania

Clinical scientific supervisor:

Péter Hegyi, Alexandra Mikó

Scientific methodology supervisor:

Szilárd Váncsa

Educational supervisor:

Márta Balaskó

Study groups:

Hungarian Pancreatic Study Group, Romanian
Pancreatic Study Group

E-mail:

stfnbndc@gmail.com

Stefania is taking part in a 12-month research fellowship programme. She is currently working on 2 meta-analyses evaluating the prognostic role of liquid biopsy in pancreatic adenocarcinoma – for cfDNA and exosomes, respectively. She is a specialist doctor in Gastroenterology in Romania. She is also a 3rd year PhD student and her thesis will be on “Mutational profile of pancreatic adenocarcinoma diagnosed by echoendoscopic guided fine needle aspiration”.

EXPECTED DEADLINES

First meta-analysis submission: February 2021

Second meta-analysis submission: May 2021

RITA NAGY

months

12



Age: 27 years

Former institution:

Heim Pál National Institute of Paediatrics

Clinical scientific supervisor:

Andrea Párniczky, Péter Hegyi

Scientific methodology supervisor:

Klementina Ocskay

Educational supervisor:

Erika Pétervári

Study groups:

Hungarian Pancreatic Study Group

E-mail:

nagyrita003@gmail.com

Rita is a resident doctor in pediatrics and is taking part in the 12-month PhD fellowship programme. She is working on a meta-analysis examining the associations of nutritional status of CF patients and clinical outcomes (respiratory function, mortality, imbalance of glucose homeostasis etc.). Her second project is a cohort analysis using data from the Acute Pancreatitis Registry, with the aim to assess current clinical practice internationally and develop a safe discharge protocol which minimizes hospital stay. Rita is also planning to write a case report introducing a 17-year-old female patient's case with biliary acute pancreatitis. Furthermore, she participates in the data validation and management of the Acute Pancreatitis Registry.

EXPECTED DEADLINES

Meta-analysis: March 2021

Cohort study: May 2021

Case report: January 2021

EDUARD OŠTARIJAŠ

months

12



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Age: 25 years

Former institution:

University of Rijeka, Clinical Hospital Centre
Rijeka

Clinical scientific supervisor:

Bálint Erőss

Scientific methodology supervisor:

Lajos Szakó

Study groups:

GI Bleeding Study Group

E-mail:

e.ostarijas@gmail.com

Eduard is a member of the Gastrointestinal Bleeding Study Group, who is participating in a 12-month clinical PhD fellowship program. He is currently working on a meta-analysis, assessing the effect of the common cardiac comorbidities on the disease course of the gastrointestinal bleeding. His additional goal is to conduct a cohort analysis, considering the fluid therapy in the case of gastrointestinal bleeding.

EXPECTED DEADLINES

Meta-analysis: March 2021

Cohort analysis: June 2021

MÁTÉ ROTTLER

months

12



Age: 33 years

Former institution:

Fejer County Saint George University
Teaching Hospital of the University of Pécs

Clinical scientific supervisor:

Zsolt Molnár

Scientific methodology supervisor:

Klementina Ocskay

Educational supervisor:

Zoltán Rumbus

Study groups:

Hungarian Intensive Care Study Group

E-mail:

mate.rottler@gmail.com

Máté is a specialist doctor in anesthesiology and intensive care and he is participating in the 12-month clinical PhD fellowship programme. He is currently working on a meta-analysis assessing the risk frailty (assessed by clinical frailty scores) conveys in COVID-19. He is responsible for establishing a multicentre clinical patient registry for mechanically ventilated patients due to hypoxic respiratory failure. His third project is a review on the current knowledge of individualized fluid therapy in intraoperative and intensive care settings. Furthermore, Máté also participates in the data validation for the COVID-19 Registry and other projects of the Intensive Care Study Group.

EXPECTED DEADLINES

Meta-analysis: March 2021

RCT: May 2021

Review: January 2021

BRIGITTA TEUTSCH

months

12



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Age: 24 years

Former institution:

University of Medicine and Pharmacy of
Târgu Mureș

Clinical scientific supervisor:

Bálint Erőss, Nándor Faluhelyi

Scientific methodology supervisor:

Szilárd Vánca

Educational supervisor:

Erika Pétervári

Study groups:

Hungarian GI Bleeding Study Group

E-mail:

teutschbrigitta@gmail.com

Brigitta is participating in a 12-month research fellowship programme. Her main goal is to write a systematic review and meta-analysis about the different preventive and therapeutic options in NSAID-induced small intestinal enteropathies. Her other primary objective is to operate the Gastrointestinal Bleeding Registry and prepare a cohort analysis focusing mainly on the medication of the patients included. Brigitta will also perform retrospective descriptive study regarding computed tomography angiography and its diagnostic appropriateness in gastrointestinal diseases.

EXPECTED DEADLINES

Meta-analysis submission: February 2021

Registry analysis submission: May 2021

Retrospective analysis submission: July 2021

LILLA TÓTH

months

12



Age: 26 years

Former institution:

Semmelweis University, Budapest, Hungary

Clinical scientific supervisor:

Zsuzsanna Helyes, György Nagy

Scientific methodology supervisor:

Márk Félix Juhász

Study groups:

Hungarian Rheumatology Study Group

E-mail:

lillatot9@gmail.com

Lilla is participating in a 12-month long clinical and basic science PhD fellowship programme. She investigates the pathological mechanisms of pain in different types of rheumatic diseases.

Since pain is one of the most problematic symptoms of these pathological conditions, Lilla is currently working on a meta-analysis, which aims to investigate the effect of JAK-inhibitors on pain and other patient reported outcomes in patients with rheumatoid arthritis (RA). She is participating in setting up a patient registry for RA patients, especially focusing on difficult-to-treat patient groups to provide further information on chronic pain in rheumatic diseases. In her basic research project she plans to perform a complex clinical and experimental analysis of patients with RA and fibromyalgia and conduct a metabolomic and transcriptomic profiling of peripheral blood mononuclear cells and plasma followed by a comprehensive bioinformatic analysis in order to identify possible target molecules or signaling pathways that can be involved in inducing and maintaining pain. The basic research experiments take place in the Department of Pharmacology, University of Pécs, and in collaboration with Budai Irgalmasrendi Hospital and Semmelweis University.

EXPECTED DEADLINES

Meta-analysis submission: February 2021

Start of patient inclusion in RA registry: January 2021

**Start of basic research analysis
of registry samples:** December 2021

MÁTYÁS VAJDA

months

12



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Age: 31 years

Former institution:

Fejer County Saint George University
Teaching Hospital of the University of Pécs

Clinical scientific supervisor:

Károly Schandl

Scientific methodology supervisor:

Lajos Szakó

Educational supervisor:

Fanni Dembrovszky

Study groups:

Orthopedic Study Group

E-mail:

v.matyasvajda@gmail.com

Mátyás is participating in a 12-month clinical PhD fellowship program. He is currently working on a meta-analysis, assessing the optimal management of the subscapularis muscle in the case of shoulder arthroplasty. In the meantime, he also works on an additional meta-analysis, comparing the tenodesis and tenotomy in the case of biceps tear. His additional goal is to establish a multicenter patient registry, which records the clinical cases of rotator cuff tears.

EXPECTED DEADLINES

Subscapularis meta-analysis: March 2021

Biceps tear meta-analysis: May 2021

Establishment of the registry: July 2021

MARCELL VIRÁG

months

12



Age: 29 years

Former institution:

Fejer County Saint George University
Teaching Hospital of the University of Pécs

Clinical scientific supervisor:

Zsolt Molnár

Scientific methodology supervisor:

Klementina Ocskay

Educational supervisor:

Márta Balaskó

Study groups:

Hungarian Intensive Care Study Group

E-mail:

viragmarcell@yahoo.com

Marcell is a resident doctor in anesthesiology and intensive care and he is participating in the 12-month clinical PhD fellowship programme. He is currently working on a meta-analysis examining the effects of goal-directed fluid therapy on postoperative outcomes in adults undergoing laparoscopic surgery. He is responsible for planning a randomized clinical trial which aims to investigate the effects of different fluid management protocols on macro- and micro circulation in adults during pancreaticoduodenectomy. His third project is a case series, presenting data on CytoSorb therapy in COVID-19. Marcell also participates in the data validation for the COVID-19 Registry and other projects of the Intensive Care Study Group.

EXPECTED DEADLINES

Meta-analysis: March 2021

RCT: September 2021

Case series: January 2021

NORBERT KOVÁCS

months

24



Age: 25 years

Former institution:

University of Medicine and Pharmacy of
Târgu Mureș

Clinical scientific supervisor:

Szabolcs Ábrahám, Bálint Erőss

Scientific methodology supervisor:

Mária Földi

Study groups:

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E-mail:

kovacsnorbert12@gmail.com

Norbert's main areas of research are the biliary tract disorders and interventions. In this field, he is currently working on two meta-analyses. One of them investigates the role of intraoperative cholangiography during cholecystectomy. The other one compares different types of stents in patients with biliary tract obstruction. Besides, he is a co-worker in the ERCP registry, he mainly helps in data management. He also plans to carry out a retrospective analysis about intraoperative cholangiography during cholecystectomy.

EXPECTED DEADLINES

**Meta-analysis about intraoperative
cholangiography submission:** April 2021

**Meta-analysis about stents in
biliary tract obstruction:** March 2021

Retrospective analysis: May 2021

ANNA GABRIELLA LAMBERTI



Age: 26 years

Former institution:

University of Pécs Medical School

Clinical scientific supervisor:

Gergő Józsa

Scientific methodology supervisor:

Zoltán Rumbus

Basic research supervisor &

Education supervisor: András Garami

Study groups:

Thermophysiology Study Group

E-mail:

laavaao.pte@tr.pte.hu

Anna is participating in a 24-month clinical PhD fellowship programme. She is currently working on a meta-analysis, comparing the minimal invasive treatment options of distal dia-metaphyseal radius fractures in children. She is also responsible for planning a basic research project for evaluating the biomechanical stability of the different K-wire fixation methods with 3-point crash test using synthetic bones in a collaboration with the 3D-Center.

EXPECTED DEADLINES

Development of new experimental setup: November 2020

Start of basic research project: October 2020

Meta-analysis submission: February 2021

ABA TAMÁS LŐRINCZ

months

24



Age: 27 years

Former institution:

University of Pécs Medical School

Clinical scientific supervisor:

Gergő Józsa

Scientific methodology supervisor:

Zoltán Rumbus

Basic research supervisor & Education supervisor: András Garami

Study groups:

Thermophysiology Study Group

E-mail:

aba.lorincz@gmail.com

Aba is participating in a 24-month clinical PhD fellowship programme. He is currently working on a network meta-analysis, which compares the therapeutic options for pediatric partial thickness burns. He is also responsible for planning a basic research project for evaluating the changes of molecular mechanisms in young rats with second degree burns treated with different methods, utilizing PCR, Western Blot and immunohistochemistry.

EXPECTED DEADLINES

Development of new experimental setup: November 2020

Start of animal experiments: December 2020

Meta-analysis submission: February 2021

BERNADETTE NAGY

months

24



Age: 25 years

Former institution:

University of Medicine and Pharmacy of
Târgu Mureș

Clinical scientific supervisor:

László Czopf

Scientific methodology supervisor:

Márk Félix Juhász

Education supervisor:

Dóra Kovács

Study groups:

Hungarian Cardiology Study Group

E-mail:

bernadette.nagy18@gmail.com

Bernadette is taking part in a 24-month clinical and basic science fellowship programme at the Institute for Translational Medicine. Her field of interest is cardiology, with a special focus on cardiovascular prevention, atrial fibrillation, and its neurovascular repercussions. She is currently working on a meta-analysis examining the safety and efficacy of colchicine (a drug most commonly used in the treatment of gout) as a cardiovascular preventive agent. Together with her supervisor, she plans to extend this project into basic science and observe colchicine's effects in cardiovascular rat models. In November, she started working in the COVID-19 registry, with a planned analysis of cardiovascular comorbidities and their effect on prognosis.

EXPECTED DEADLINES

Meta-analysis submission: February 2021

Start of participation in COVID-19 registry: November 2020

Start of basic research work: December 2020

ORSOLYA ANNA SIMON

months

24



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Age: 26 years

Former institution:

University of Pécs Medical School

Clinical scientific supervisor:

Imre Szabó

Scientific methodology supervisor:

Lajos Szakó

Educational supervisor:

Dóra Dohos

Study groups:

Hungarian GI Bleeding Study Group

E-mail:

orsi.simon55@gmail.com

Orsolya is a member of the Gastrointestinal Bleeding Study Group, who is participating in a 24-month clinical PhD fellowship program. She is currently working on a meta-analysis, assessing the association between the *Helicobacter pylori* infection and the carotid intima media thickness. In the meantime, she also works on the data upload and quality assuring of the gastrointestinal bleeding registry. Her additional goal is to conduct a cohort analysis considering gastrointestinal bleeding.

EXPECTED DEADLINES

Meta-analysis: May 2021

Cohort analysis: December 2021

ZSÓFIA VERECKEI

months

24



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Age: 26 years

Former institution:

Faculty of Health Sciences, University of Pécs,

Clinical scientific supervisor:

Judit Bajor, Zsolt Szakács

Scientific methodology supervisor:

Marcell Imrei

Study groups:

Hungarian Celiac Disease Study Group

E-mail:

vereczkei47@gmail.com

Zsófia is participating in a 24-month PhD fellowship programme. She is currently working on a meta-analysis, evaluating the differences of body composition in celiac population before and during gluten-free diet, compared to the body composition of the healthy population. In addition, she is setting up a multicentre clinical trial series to assess metabolic parameters, body composition and nutritional status of celiac disease patients. This project will consist of a cross sectional study, a cohort study and a randomized controlled trial with dietary intervention. These projects will be conducted in cooperation with the Hungarian Celiac Disease Study Group.

EXPECTED DEADLINES

Meta-analysis submission: February 2021

Submission of the observational study protocols: March 2021

Randomized controlled trial protocol submission: May 2021

CENTRAL INTERDISCIPLINARY UNIT



Péter Hegyi
Strategy Manager



Andrea Szentesi
Operation Manager



Bálint Erőss
Medical Group
Leader



Zsolt Szakács
PhD Programme
Coordinator



Péter Jenő Hegyi
External Center
Coordinator



Lajos Szakó
Clinical Trial
Coordinator



Szilárd Váncsa
Clinical Trial
Coordinator



Nóra Vörhendi
Clinical Trial
Coordinator



Noémi Zádori
Clinical Trial
Coordinator



Szabolcs Kiss
Meta-analysis
Coordinator



Fanni Dembrovszky
Meta-analysis
Coordinator



Mária Földi
Patient Register
Coordinator



Vivien Vass
Patient Register
Coordinator



Emőke Miklós
Data&Patient
Coordination
Group Leader



Dominika Tóth
Ethical Coordinator



**Margit
Varjú-Solymár**
HR&Financial
Group Leader



Nelli Farkas
Biostatistics
Group Leader



Richárd Farkas
IT Group Leader



Nikolett Tucsek
Communication
Group Leader



Dóra Czapári
Legal Coordinator



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