

# Minutes – FREM Section Meeting

## ESICM LIVES 2025, Munich

**Date:** Tuesday, 28 October 2025

**Time:** 13:30 – 15:00 CET

**Location:** Level 2, Room Ostsee BC

**Format:** Hybrid meeting organised by ESICM

### Chairs:

Prof. Dr. Arthur R.H. van Zanten (outgoing Chair)

Prof. Dr. Christian Stoppe (incoming Chair)

## 1. Opening

Prof. Arthur van Zanten opened the meeting, welcomed all participants, and presented the agenda, which was approved unanimously.

## 2. Approval of Previous Minutes

The minutes of the online FREM Section Meeting (9 April 2025) were approved without amendments.

## 3. Chair Transition

Prof. van Zanten formally handed over the FREM Chair to Prof. Christian Stoppe, following a productive and high-impact term that significantly strengthened the Section's international visibility, collaboration, and scientific output.

Members expressed deep appreciation for his leadership, expansion of research networks, and contribution to ESICM's educational and sustainability initiatives.

## 4. FREM Representatives (2024–2025)

Position	Name	City	Country
Chair (outgoing)	Arthur van Zanten	Ede	The Netherlands
Chair (incoming)	Christian Stoppe	Würzburg	Germany
Research Committee Representative (outgoing)	Daniel Gomes	Lisbon	Portugal
Social Media & Digital Content Representative (outgoing)	Kristine Koekkoek	Utrecht	The Netherlands
e-Learning Committee Representative (outgoing)	Sjoerd van Bree	Ede	The Netherlands
Clinical Training Committee Representative (continuing)	Jan Gunst	Leuven	Belgium

## **New Representatives (2025–2026):**

- Research Committee: Kürsat Gündogan & Stefano Marelli
- Academy Sub-Committee: Simone Piva
- Social Media Committee: Catarina Domingues & Maria Eloisa Garcia Velasquez
- Clinical Training Committee: Varsha Asrani & Kyrillos Nassim

The FREM Leadership Team and Board include all above members, with Kristine Koekkoek and Arthur van Zanten serving as senior advisors (Past Chair).

## **5. Social Media and Communication**

### **Website & Outreach**

Dr. Kristine Koekkoek continues to enhance the FREM Section’s digital visibility through regular updates to the ESICM website and through proactive coordination of communication channels. Although she was unable to attend due to illness, her efforts were acknowledged, with special thanks to Annika Reintam Blaser, Kaspar Bachmann, and Arthur van Zanten for taking over moderator roles and (poster) session coordination during LIVES 2025.

### **The FREM Section operates two complementary WhatsApp groups:**

- Official ESICM-monitored group, used for formal communication and announcements.
- Community initiative group, initiated by Kristine Koekkoek, with more than 75 active members, providing an informal forum for sharing publications, upcoming talks, and collaborative opportunities.

Members are invited to join either or both groups according to their communication preference.

### **Webinars & Podcasts**

FREM continues to expand its digital education and outreach activities:

- Launch of the new “Inspiring Intensivists” podcast series, highlighting personal and professional journeys of leaders in intensive care and nutrition research.
- Annual “FREM Month” webinar series, usually held in April, offering multidisciplinary updates on feeding, rehabilitation, endocrinology, and metabolism.
- Contributions to NEXT Podcasts, with open invitations for members to propose new speakers or innovative topics.

### **Networking & Engagement**

Members are encouraged to connect and represent FREM during major nutrition and critical-care congresses such as ESPEN, ASPEN, and FELANPE.

The section aims to foster greater international engagement, especially with colleagues from South America, and to improve coordination on where and when FREM members can meet at other congresses.

## Call to Action

All members are invited to:

- Suggest new webinar and podcast topics or potential speakers.
- Contribute ideas for joint communication campaigns to enhance FREM's global visibility.
- Share upcoming speaking engagements or publications to be promoted on ESICM and FREM platforms.

## FREM Webinar – “Challenges and New Perspectives in Critical Care Nutrition” (22 April 2025)

On 22 April 2025, ESICM hosted the high-impact FREM webinar *“Challenges and New Perspectives in Critical Care Nutrition.”*

The event attracted several hundred international attendees and provided a vibrant discussion on methodological, physiological, and clinical aspects of nutrition research in the ICU.

Two major presentations structured the session:

1. “Revisiting Clinical Questions in Critical Care Nutrition” – *Dr. Charles Lew*, Ng Teng Fong General Hospital, Singapore.  
Dr. Lew revisited core questions regarding energy and protein targets, timing, and metabolic adaptation, highlighting the importance of personalisation based on indirect calorimetry and protein quality.
2. “Why So Many Neutral Studies? — The Statistician’s Perspective” – *Dr. Andrew Day*, Kingston Health Sciences Centre, Ontario, Canada.  
Dr. Day analysed the statistical reasons behind neutral findings in major RCTs, addressing issues of heterogeneity, insufficient power, and endpoint selection.

The session was moderated by Dr. Varsha Asrani (Auckland City Hospital, New Zealand) and Prof. Christian Stoppe (Würzburg University Hospital & Charité – Universitätsmedizin Berlin, Germany). The recording is available via the [ESICM Academy](#).

## 6. ESICM LIVES 2025 Programme

The FREM Section actively contributed to the scientific programme at LIVES 2025, delivering one debate session, one thematic session, and several joint multidisciplinary sessions. Attendance across sessions was excellent. However, the Protein Thematic Session exceeded room capacity, with participants seated in the aisles and many standing outside the room. This strong attendance highlights the growing interest in nutrition-focused science and the need for larger rooms for future FREM-related sessions.

Feedback will be formally shared with the LIVES Programme Committee to support improved room allocation for LIVES 2026 in Lisbon, ensuring broader access and enhanced engagement for attendees.

The section expressed sincere appreciation to Cindy Martinez and Salvatore Maggiore for their outstanding organisation of the congress and their continuous support and collaboration with FREM.

## 7. Research Activities and Awards

The Research Committee, represented by Daniel Gomes (Lisbon, Portugal), provided an extensive overview of ongoing and newly endorsed research initiatives within the FREM Section.

### Research Surveys and Registries

Several large-scale ESICM-endorsed studies continue to progress successfully under FREM leadership and collaboration:

- The International Acute Nutrition Registry, coordinated by Carina Güttler and Christian Stoppe, has now attracted interest from over 120 participating sites worldwide. Members interested in joining the registry were invited to contact Carina Güttler (Guettler\_C@ukw.de).
- The CARE Survey, endorsed by ESICM, explores global enteral feeding practices in critically ill patients. The initiative is led by Simone van Beek, PhD (Ede–Wageningen, The Netherlands), and Imre Kouw, PhD, and aims to harmonise data on feeding practices, tolerance, and nutritional adequacy across ICUs. Members are encouraged to participate and disseminate the survey within their national networks.
- The ESICM Research Committee survey, led by Daniel Gomes, identified emerging priorities in metabolic and nutritional research, aligning future projects with the broader ESICM scientific strategy.

### Research Awards and Recognition

The section celebrated several notable recognitions and research awards:

- The 2024 ESICM–Fresenius Kabi Clinical Nutrition Award was presented to Dr. Sandra Emily Stoll (Cologne, Germany) for the *Deliket Study*, a pioneering investigation into the nutritional management of critically ill patients.
- For 2025, a record number of 17 applications were received for the same award, with six projects shortlisted for final evaluation.
- Congratulations were extended to Salvatore Lucio Cutuli for winning the 2025 ESICM–Fresenius Kabi Clinical Nutrition Award. And to Zheng Yii Lee and Hanna Wozniak for receiving ESICM Research Awards in recognition of their outstanding contributions to critical care science.

## 8. Honorary Memberships

ESICM also honoured two outstanding professionals for their lifelong contributions to intensive care medicine:

- At LIVES 2024 (Barcelona): Danielle Bear, Principal Critical Care Dietitian (UK), now based at the Royal Adelaide Hospital, Australia.
- At LIVES 2025 (Munich): Prof. Yaseen Arabi, Chairman of the Intensive Care Department and Medical Director of Respiratory Services, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia.

## 9. Major Research Projects

### GUTPHOS Project

The GUTPHOS project is a prospective multicentre study designed to validate the Gastrointestinal Dysfunction Score (GIDS) and to investigate dysphosphatemia during the first week of ICU stay. With patient inclusion now complete, data cleaning and statistical analysis are currently ongoing (status: November 2025). The project, endorsed by ESICM, received the ESICM–Fresenius Kabi Nutrition Award 2023, presented in Milan during LIVES 2023.

GUTPHOS has demonstrated remarkable progress, involving 28 sites across Europe (21), China (3), the Middle East (1), North America (1), South America (1), and New Zealand (1). Originally designed to enrol over 1,400 ICU patients, the study has successfully included 2,680 participants, marking a major milestone. Part A, focusing on the development and validation of the GIDS score, is led by Annika Reintam Blaser, while Part B, examining phosphate metabolism and dysphosphatemia, is led by Arthur van Zanten.

#### Publications:

Kouw IWK, Melchers M, Mändul M, Arabi YM, Casaer MP, Cotoia A, Gunst J, Malbrain MLNG, Schaller SJ, Starkopf J, Sundström Rehal M, Reintam Blaser A, van Zanten ARH. Prospective multicenter study to validate the gastrointestinal dysfunction score (GIDS) in intensive care 2024 Oct;63:702-708. doi: 10.1016/j.clnesp.2024.07.023. Epub 2024 Jul 26. PMID: 39069258.

Melchers M, Kouw IWK, Arabi YM, Casaer MP, Cotoia A, Gunst J, Malbrain MLNG, Schaller SJ, Starkopf J, Rehal MS, Blaser AR, van Zanten ARH. Prospective multicenter study to describe the prevalence, outcomes, and management of phosphate disorders in intensive care patients: Study protocol for part B of the international GUTPHOS study. Clin Nutr ESPEN. 2024 Oct;63:681-687. doi:10.1016/j.clnesp.2024.07.024. Epub 2024 Jul 26. PMID: 39069259.

Reintam Blaser A, Cotoia A, Berger MM, Padar M, Arabi YM, Casaer MP, Gunst J, Kouw IWK, Malbrain MLNG, Schaller SJ, Starkopf J, Sundström Rehal M, van Zanten ARH, Bachmann KF; GUTPHOS study sites and investigators. How to define parenteral nutrition. Crit Care. 2024 Nov 19;28(1):372. doi: 10.1186/s13054-024-05153-1. PMID: 39563392; PMCID: PMC11577738.

### COSMOGI Project

The COSMOGI project (Core Outcome Set of Daily Gastrointestinal Function Monitoring in Critically Ill Patients) aimed to establish a standardized framework for assessing gastrointestinal function in ICU patients. The Delphi consensus process among 86 international experts, led by Kaspar Bachmann and Annika Reintam Blaser, successfully defined a core outcome set for gastrointestinal monitoring. The results have been published, representing a key step toward harmonizing gastrointestinal function assessment in critical care research worldwide.

**Publication:** Bachmann KF, Jenkins B, Asrani V, Bear DE, Bolondi G, Boraso S, Casaer MP, Chang Z, Coopersmith CM, Cotoia A, Davies T, De Man A, Elke G, Gundogan K, Gunst J, Kvolik S, Laube M, Lindner M, Lopez-Delgado JC, Loudet C, Matsa R, Pardo E, Piva S, Puthuchery Z, Rice TW, Ruiz-Santana S, Schaller SJ, Starkopf J, Stoppe C, Van Zanten A, Reintam Blaser A. Core outcome set of daily monitoring of gastrointestinal function in adult critically ill patients: a modified Delphi

consensus process (COSMOGI). Crit Care. 2024 Dec 18;28(1):420. doi: 10.1186/s13054-024-05192-8. PMID: 39695807; PMCID: PMC11654350.

### **Micronutrient Research and BIOMICRO (Marie Curie HORIZON EU) Doctoral Network**

A dedicated group of FREM members, led by Dr. Angelique de Man (Amsterdam UMC, The Netherlands), made significant progress in micronutrient research in critically ill patients. Their landmark paper, *“What Do We Know About Micronutrients in Critically Ill Patients, A Narrative Review”* consolidated global knowledge and identified major research priorities on trace elements, vitamins, and their mechanistic roles in metabolic stress.

#### **Publication:**

de Man AME, Stoppe C, Koekkoek KWAC, Briassoulis G, Subasinghe LSDP, Cobilinschi C, Deane AM, Manzanares W, Grințescu I, Mirea L, Roshdy A, Cotoia A, Bear DE, Boraso S, Fraipont V, Christopher KB, Casaer MP, Gunst J, Pantet O, Elhadi M, Bolondi G, Forceville X, Angstwurm MWA, Gurjar M, Biondi R, van Zanten ARH, Berger MM; ESICM/FREM MN Group. What do we know about micronutrients in critically ill patients? A narrative review. JPEN J Parenter Enteral Nutr. 2025 Jan;49(1):33-58. doi: 10.1002/jpen.2700. PMCID: PMC11717498.

Building on this success, Dr. de Man was awarded a €3.93 million Marie Skłodowska-Curie HORIZON EU Doctoral Network grant (BIOMICRO) for the proposal *“Training Interdisciplinary Research Fellows to Advance Personalised Micronutrient Strategies for Critically Ill Patients.”*

This prestigious international consortium aims to train 13 PhD fellows across Europe and industry partners, focusing on personalised micronutrient approaches through mechanistic, clinical, and translational studies.

The project involves multiple FREM-affiliated investigators, including:

- Prof. Christian Stoppe (Germany)
- Prof. Arthur R.H. van Zanten (The Netherlands)
- Dr. Kristine Koekkoek (The Netherlands)
- Dr. Angelo Cotoia (Italy)
- Dr. Imre W.K. Kouw (The Netherlands)
- Prof. Mette M. Berger (Switzerland)
- Prof. Kenneth B. Christopher (USA)

In addition, the BIOMICRO consortium collaborates with private sector and academic partners to develop advanced analytical and clinical implementation strategies for micronutrient monitoring and supplementation in critical illness.

This award represents one of the largest nutrition-related EU-funded doctoral networks to date and underscores FREM’s leadership in translational nutrition research within ESICM.

## **10. Green Nutrition ICU Project / SUSTAIN Study**

Focus: sustainability and safety of extended enteral/parenteral feeding system hang-time.

Within the framework of the Green Nutrition ICU Project, the SUSTAIN Study, a retrospective and prospective cohort study in 122 ICU patients, showed that extending enteral feeding hang 'me from 24 to 48 hours was feasible and safe, with no increase in diarrhoea (65% vs 73%) or pneumonia (32% vs 32%). Microbiological testing revealed only minimal proximal contamination, while workload and material use were reduced. A non-inferiority trial (24 h vs 48 h;  $n \approx 10\,000$ ) is considered, however the size is challenging.

#### **Publication:**

Paulus MC, Melchers M, den Ruijter T, Reijn M, Zwietering MH, van Zanten ARH, Exploring the Safety of Prolonging the Hang Time of Enteral Feeding Systems in the Intensive Care Unit, *Clinical Nutrition*, <https://doi.org/10.1016/j.clnu.2025.10.013>.

## **11. Education & E-Learning**

Nutrition Pathway 2025 (Danni Bear & Michael Casaer): In the spring of 2025, ESICM successfully hosted the fourth edition of the Nutrition Pathway, under the dynamic leadership of Danni Bear (Adelaide, Australia) and Michael Casaer (Leuven, Belgium; past FREM Chair).

The event attracted a diverse global audience of nurses, dietitians, nutrition scientists, and intensive-care physicians, who participated in two days of highly interactive online sessions led by multidisciplinary experts.

Participants who excelled in the final evaluation were offered nutrition fellowships at leading European ICUs, including Karolinska University Hospital (Stockholm, Sweden) and UZ Leuven (Belgium). These fellowships were highly successful. Fellows gained hands-on experience in ICU nutrition practices and have since made remarkable contributions to the ESICM and FREM communities, including:

- Creating ESICM podcasts and educational media;
- Serving as FREM representatives on the Research Committee;
- Organising nutrition workshops at national and regional congresses;
- Developing online learning materials for the ESICM Academy;
- Winning the ESICM Prize for Safety in the ICU;
- Joining the faculty for the ESICM Nutrition Courses 2025 and 2026.

Looking ahead, Annika Reintam Blaser (Tartu, Estonia / Bern, Switzerland) will take over coordination of the Nutrition Pathway from Danni Bear, ensuring continuity and innovation in this flagship ESICM educational initiative.

Later, Dr. Martin Sundström Rehal (MD, PhD, Department of Perioperative Medicine and Intensive Care, Karolinska University Hospital / Karolinska Institutet, Stockholm, Sweden) will succeed Michael Casaer to further strengthen collaboration between Karolinska and ESICM in nutrition and metabolism education.

New host centres are warmly invited to join the fellowship network, and several new international faculty experts have already confirmed participation for the Nutrition Course 2026.

**E-Learning Modules:** Sjoerd van Bree (Ede, The Netherlands), who continues to serve as the FREM representative on e-learning, has been awarded a new two-year term in this position. His ongoing

leadership has been instrumental in the strategic renewal of ESICM's e-learning content, focusing on high educational quality and strong collaboration with contributors.

The development and revision of e-learning modules are progressing steadily, with an emphasis on providing clear feedback and recognition to authors and first contributors. To acknowledge their efforts, contributors now receive a discount on congress registration fees once their modules are published. Recent achievements include:

- The update of the module on Acute Liver Failure, now led by Mara Martinez and Ahmed Zaher from the ESICM NEXT Committee.
- Comprehensive revisions of both the ACE Series on Nutrition (5 parts) and the ACE Series on the Abdomen in Acute Critical Care (4 parts).
- Publication of the revised Severe Acute Pancreatitis module on the ESICM Academy (October 2025), developed in collaboration with Dr. Angelique de Man.
- The addition of new and updated modules on abdominal issues and acute pancreatitis, coordinated by Prof. Jean-Charles Preiser and Dr. Angelique de Man.

Contributors were reminded that the list of module authors and collaborators is publicly accessible on the ESICM Academy platform ([academy.esicm.org](https://academy.esicm.org)), allowing individuals to reference their educational work.

**Structural change:** Organisational restructuring within ESICM education merged the Clinical Training Committee (CTC) and e-Learning Committee (eLC) into the unified Academy Sub-Committee under the Education and Training Committee. This new structure enhances integration of live courses, e-learning, and fellowships, ensuring harmonised workflows for curriculum development, peer review, and educational innovation.

## 12. New ESICM Section on Rehabilitation & PICS

The ESICM Executive Team, led by President Jan De Waele, convened to discuss whether the "R" for Rehabilitation should remain within the FREM Section or whether a new section dedicated to Post-Intensive Care Syndrome (PICS) should be established. This initiative was originally proposed by FREM member Stefan Schaller. Following an in-depth discussion, and for strategic reasons aimed at strengthening the visibility and impact of ESICM activities addressing the long-term consequences of critical illness, the Executive Committee decided to establish a new ESICM Section: Rehabilitation & PICS. This decision was officially announced during the Council Meeting and General Assembly at LIVES 2025 in Munich. Close collaboration and alignment between FREM and the new Rehabilitation & PICS Sec'on are anticipated to ensure synergy and continuity across ESICM's rehabilitation-related initiatives.

## 13. New Initiatives & Collaborations

The Global Research Initiative on Post-ICU Nutrition (GRIP) was launched by Prof. Arthur van Zanten (Ede/Wageningen, The Netherlands) and Prof. Elisabeth De Waele (Brussels, Belgium).

This international academic collaboration is dedicated to optimising nutrition therapy for patients

recovering from critical illness. Its mission is to improve post-ICU recovery trajectories and long-term outcomes through collaborative research, education, and implementation.

### **Objectives**

GRIP's objectives are to:

- define and prioritise key research questions and outcome measures in post-ICU nutrition;
- facilitate multicentre studies and harmonise methodologies across international sites;
- develop practical tools for nutrition intake monitoring, dosing, and personalised strategy design;
- promote education and training for clinicians, researchers, and allied health professionals;
- engage patients and families to co-create recovery-oriented nutrition pathways and increase implementation success.

### **Research Domains**

Through an international consensus process, GRIP identified ten core research domains that structure its global research agenda:

1. Pathophysiology of post-ICU recovery
2. Phenotyping and personalised nutrition strategies
3. Timing and delivery of nutrition
4. Monitoring and optimisation of nutritional intake
5. Evaluation of nutrition interventions and clinical effectiveness
6. Long-term functional and quality-of-life outcomes
7. Digital tools and remote monitoring
8. Education and professional engagement
9. Implementation science and system integration
10. Patient and family involvement

### **Consensus Definition**

GRIP defines a *post-ICU patient* as any adult admitted to an ICU for more than 48 hours and in the recovery phase after the first ICU discharge, up to one year, regardless of readmissions or discharge destination.

This standardised definition supports consistency across future GRIP research protocols and surveys.

### **Collaborative Engagement**

GRIP actively invites FREM and ESICM members to participate in its working groups, consensus activities, and multicentre studies. Upcoming collaborative outputs include scoping reviews and position papers, with dissemination planned around major congresses such as ESPEN 2025 (Prague) and ISICEM 2026 (Brussels).

More information: [www.griposticu.com](http://www.griposticu.com)

**Sustainability & Cross-Society Coordination:** Prof. Pierre Singer suggested to align initiatives between FREM and other international societies. How to score sustainability metrics for disposals related to medical nutrition? Partnership with Nicole Hunfeld to quantify plastics use in nutrition therapy and develop sustainability metrics is anticipated.

**FREM research papers:** A new special series on obesity in critical illness has been launched in Intensive Care Medicine (ICM). Members interested in contributing to FREM research topics, for example through original research, systematic reviews, or viewpoint articles, are warmly invited to contact Prof. Christian Stoppe, who will be happy to support the coordination and development of new manuscripts within the FREM thematic framework.

## 14. Action Items

Action	Responsible
Webinar / podcast topic proposals	Kristine Koekkoek
Participation in Acute Nutrition Registry	Christian Stoppe
CARE Survey (Global Enteral Feeding)	Imre Kouw / Arthur van Zanten
New joint manuscript initiatives	Arthur van Zanten / Christian Stoppe / Angelique de Man
Completion of research survey	All members

## 15. Closing Remarks

Prof. Christian Stoppe expressed his sincere appreciation to all members for their dedicated engagement and outstanding contributions throughout the year.

He highlighted the FREM Section’s growing leadership in translational nutrition science, education, sustainability, and international collaboration.

Looking ahead, FREM’s priorities will include:

- strengthening mentorship and career development for early-career members,
- fostering collaboration with the new ESICM Section on Rehabilitation & PICS/Post-ICU, and
- further expanding FREM’s global network and research visibility across all continents.

Prof. Stoppe concluded the meeting with a clear message to all members and collaborators:

“Get involved – contribute, connect, and help shape the future of FREM.”

## 16. Next Meeting

Virtual FREM Section Meeting – January 2026 (date TBC) especially focusing on research activities.