SFRR-Europe sponsorship of scientific activities

Meeting report

The Redox Chemistry / Biochemistry Graduate Summer Course was hosted by the University of Debrecen from 10 to 14 June 2025. In the framework of the Course, we organized the Young Investigators' Satellite Day with the support of the Society for Free Radical Research – Europe.

The redox biology course has a decade-long tradition, as a shared endeavour of Karolinska Institutet (KI), the University of Nebraska-Lincoln (UNL), and the Medical University of South Carolina (MUSC). The participating institutions are delegating world-renowned experts who present fundamental knowledge as well as cutting-edge reseach data during their lectures and the students are chosen from high-achieving PhD students affiliated to these schools. The University of Debrecen (UD) has joined the network for the first time, as a newly added venue. Beyond the organizing universities, the following institutions delegated participants (instructors and / or students) to the course: National Institute of Oncology, University of Veterinary Medicine Budapest, Semmelweis University, Hungarian University of Sports Science (the latter are based in Budapest, Hungary), Friedrich Schiller University (Jena, Germany), Montana State University (Bozeman, MT, USA), and Panosome Gmbh (Heidelberg, Germany). Out of the main organizers, Profs. Elias Arnér and Peter Nagy and SFRR-E members.

The course curriculum involved a five day's schedule, including 27 lectures covering a wide range of topics in the field of redox biology, from the basics of redox reactions, through mitochondrial functions, oxidative and reductive stress, ER stress, NO signaling, biological chemistry of reactive sulfur species, analytical methods as well as clinical subjects such as cardiovascular diseases or cancer models (see the full Schedule in the attached Program Booklet).

In order to complete the course, the students were engaged in three different activities. A written exam was held at the last day of the course, from basic and bonus questions related to the course material. They presented their individual research projects during a poster session.

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Finally, student group presentations were held during the Young Investigators' Satellite Day, which was organized in an external venue, the Borsay Castle at the Mád Wine Academy in Mád, Hungary. Student groups were created in a manner to encourage networking between students with various affiliations and scientific backgrounds as much as possible. Groups of 5 or 6 students were assigned major topics of redox biology along with a number of general or more specific questions, which they presented in the form of a 25 minutes lecture followed by extensive Q&A with the participation of the lecturers and course-mates. The subjects were assigned only shortly before the course, therefore the groups had a limited amount of time to cooperate and create a high-quality presentation during an otherwise rather busy program.

The best performances during the course were awarded with an array of prizes offered by the hosting institution (UD) with substantial contributions from the co-organizing universities as well. The SFRR-E Best Student Group Presentation award was given to Group no. 3, including Brett Hilbers (UNL), Njomza Gashi (UD), Viola Varga (SU), Alexander van Deventer (KI) and Kathleen Klinzing (MUSC), speaking of Redox regulation. The thematic groups can be found in the attached Program booklet. Further prizes were awarded to the student with the highest total exam score (Kathleen Klinzing (MUSC)), best poster (David Obe (UNL)), exams with perfect score from the basic questions (4 students), most engaged students during the Q&A sessions (Kate Glorioso and Thomas Dempster from MUSC), and more. Throughout the course, we put special focus on actively involving students into the scientific discussions, inside the classroom and informally as well, and the whole program was designed to give young participants an impression of scientific collaboration in a highly international environment, fulfilling tasks in a cooperative yet somewhat competitive manner under the pressure of time-limitation, and obviously, the opportunity to learn redox biology from an outstanding team of speakers. The students' feedbacks mirrored their appreciation towards these goals and reflected that they greatly benefited from this experience within their doctoral training, in personal and professional aspects alike (see below). UD media coverage, gallery and course video are to be found under this link:

https://hirek.unideb.hu/en/international-biochemistry-course-university-debrecen

We hereby express our gratitude to the Society for Free Radical Research – Europe, for their support in the organization of this successful meeting.

UNIVERSITY of DEBRECEN
Karolinska Institutet
MUSC Medical University of South Carolina
University of Nebraska Lincoln
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NATIONAL TUMOR BIOLOGY LABORATORY
Society for Free Radical Research Europe

Please find below representative extracts from the satisfaction survey filled by the students of the course, showing their highly appreciative feedbacks.

16. Were there any parts of the course that were excellent? If so, please specify which parts and in what way.

Were there any parts of the course that were excellent? If so, please specify which parts and in what way.
The introductory presentations were fantastic! The professors attempted to explain the basic concepts such that beginners who had little to no prior knowledge of redox biology were engaged. Also, the 'informal' interactions with both faculty and course participants were most rewarding, offering more avenues to gain insights into the field.
Enjoyed the social events! Appreciated efforts of staff to accommodate student requests regarding meals and pickup students from train station. Shared folder quite helpful. Presentations helpful learning experience although expected more of this content on exam.
Elias's presentations :) They were really good introductory presentations that were clearly explained! :) The environment was totally student-friendly. :)
The lecturers were well-prepared and very clearly presented their points. The schedule was organized in a way to provide a balance of time to get to know peers and lecturers and time to study.
Student-friendliness and interactivity
Lecturers and information was really good
-The variety of faculty and perspectives. -The collaboration between professors -Day trip to winery was a great way to provide alternative environment -loved the career conversation
Every part of the course served to a great extent to improve my understanding of the molecular biological processes in my research field. The poster session is especially noteworthy, where we could not only examine the work of others and exchange knowledge and experience, but also form international collaborations.
All parts of the were exceptional. The course was structured from fundamental concepts of Redox biology, which gave some of us who had no prior knowledge of this field the foundational basis to understand newer concepts like reactive sulfur species, reductive stress, and the like.
The outside activities were great like the dinners and wine academy outing. Just the location in general was incredible, the university was beautiful and the surrounding area was very fun to explore. It was incredible being able to learn from the experts in this field and I felt like I really learned so much in such a short period.
The lectures were very enjoyable and certainly covered a very wide range of topics. It was also enjoyable being able to speak to the faculty between lectures and during free time. It was a wonderful opportunity to really make the most of the circumstances, especially with so many talented individuals present.
The course provides great networking opportunities, both personally and academically. It was really inspiring meeting people from such different places and learning what they're working on.
The course was well laid out and allowed time for students to ask questions and establish a dialogue with professors currently leading the field. Great care was also taken to make sure every student did well in the course.
The morning sessions were very helpful at giving baseline information to understand what was going to be presented in the afternoon.
Almost every lecture was very excellent. I really enjoyed collaborating with fellow students as well during the presentations and poster session.

57. Any further final comments regarding this course?

Any further final comments regarding this course?
Would be great if lecturers could note which sub chapters or pages of the textbook we can reference relating to their lecture.
It was fantastic overall. Thank you!
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Please continue to offer this course. It brings so much value to those that take it and to the field at large.
Have a donkeytastic weekend!
I hope this course continues for a long time!!
It was very well-organized and one of the most useful courses I have ever attended, thank you for the opportunity!
This was an excellent outing, and the logistics involved in such an international course are appreciated. The organizers did a great job, and we express gratitude!
The content of the course was great, the collaboration between several universities was very enriching as well. My only improvement suggestion would be to allow for more time to study and prepare the presentations.
Please allow students more time to study and prepare for exams. It is a really good course, but this schedule was too tight to understand everything. But the exam material is very valuable after the course as well. :)
Very, very glad I had the opportunity to take part in this course. I would've extended it a bit more time just for the sake of hammering key concepts even more, but I thought that the repetition that was provided helped to iron out the most important details. Thank you so much for the opportunity!
DO NOT STOP GIVING THIS COURSE, it is the best KI course I have had so far
-Great job!