



Swiss Society for Biomaterials + Regenerative Medicine
Société Suisse des Biomatériaux + Médecine Régénérative
Schweizerische Gesellschaft für Biomaterialien + Regenerative Medizin
Società Svizzera di Biomateriali + Medicina Rigenerativa

2025 June Newsletter

Dear All,

your society is pleased to share this Summer 2025 Newsletter, with a recap on the SSB+RM Annual Meeting in St. Gallen, several Young Scientist events, and key information about upcoming events and much more. Outline:

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We wish you all the best and a wonderful beginning of summer!

With kind regards,

Your SSB+RM Executive Committee



A recap of the SSB+RM 2024

28th Annual SSB+RM Meeting at Empa St. Gallen

The SSB+RM Annual Meeting was held at Empa – Swiss Federal Laboratories for Materials Science and Technology, St. Gallen, Switzerland, on September 4th and 5th, 2024. This dynamic event hosted 93 participants and featured 3 keynote speakers, 3 invited speakers, 17 oral presentations, 13 rapid-fire presentations, and 33 posters.

Day 1 Highlights:

The meeting kicked-off with a 'Career Path Roundtable', organized by the Young Scientists (YS) of the SSB+RM. The session featured inspiring talks from Martin Stoddart (AO Research Institute Davos), Morteza Aramesh (ETH Zurich), Stéphanie Boder-Pasche (CSEM Neuchatel), and Jessica Gilgenbach (SmartPath AG). These speakers shared their unique insights into navigating careers in academia and industry, offering practical advice on job applications, CV writing, leadership, work-life balance, and family planning. The interactive panel format allowed young scientists to engage with many questions.



In the afternoon, Markus Rottmar (Empa), the society's president, warmly welcomed participants. The session was centered around the theme, 'Latest Technologies & Breakthroughs on Classic Biomaterials'. Invited speaker, Ardemis Boghossian (EPFL), delivered an engaging talk on 'Bioengineering Near-Infrared (NIR-II) Optical Nanosensors', setting the stage for oral presentations on titanium implants, cardiac tissue engineering, and stem cell therapy. A fast-paced rapid-fire session followed, with 7 researchers giving succinct, elevator pitches on their projects.

Later, Dominique Pioletti (EPFL) gave a keynote presentation on 'Thermomechanobiology: the next frontier for treating osteoarthritis'. Additional oral presentations explored calcium phosphate-induced osteogenesis, and the toxicology of advanced biomaterials on the airways. The day concluded with the 30th General Assembly and an inspiring talk from 2024 RMS Research Award Winner Stéphane Bernhard (ETH Zurich) on supramolecular engineering of hydrogels for drug delivery.



Day 2 Highlights:

The second day focused on Regenerative medicine approaches. Patricia Dankers (TU Eindhoven) opened with a keynote on 'Complex tissue-inspired materials based on supramolecular polymers'. This was followed by oral presentations covering topics on in vitro skin models, skeletal muscle tissue engineering, and mRNA delivery. Mark Tibbitt (ETHZ) then gave an invited talk, which paved the way for oral presentations on corneal biomaterial engineering, bone reconstruction, and local drug and antibiotic delivery biomaterials. A second round of rapid-fire presentations showcased the elevator pitches given by 6 young scientists.

In the afternoon, Florian Groeber-Becker (Fraunhofer ISC) delivered a keynote on 'Advancements in In vitro Human Barrier modeling', which set the scene for presentations on 3D models of vascularized bone tissue, fibrosis, cardiac tissue, and glioblastoma. The session ended with invited speaker Laura Suter-Dick (FHNW) giving a talk on 'Multicellular liver microtissues for the investigation of liver fibrosis'. The meeting wrapped up with the presentation of the awards winners, which included Antonio Sileo (Uni Basel) who was awarded Best Oral Presentation, Asia Badolato (ETH Zurich) who was awarded Best Rapid Fire Presentation, and Katharina Hast (Empa), who was awarded Best Poster Presentation.



A recap of the Young Scientists of SSB+RM

Lab Networking Event sitem-insel and ARTORG Bern

On 04.07.2024, 37 young researchers from across Switzerland gathered in Bern for another exciting Lab Networking Event. In the morning we had the opportunity to learn more about the sitem-insel (Swiss Institute of Translational and Entrepreneurial Medicine), and in the afternoon we visited different labs from the ARTORG Center for Biomedical Research.



Our day started with the presentation of the sitem-insel, a community including clinics, industry, research and education. Their mission is to bring innovation to the patient by connecting people, for example by offering a variety of different educational programs or by supporting young entrepreneurs to develop outstanding ideas into a possible start-up. Next, we gained more insight into the work of two members of the sitem community, namely the start-up AlveoliX and the Clinical Anatomy

Training and Research Unit (CATR). We were able to see the current version of the AlveoliX organ-on-a-chip and the high-tech rooms of the CATR used to train surgeons and test new devices.

As the next part in our programme, Marco Cavallari and Jonas Schaefer from CSL Behring provided us with a lot of highly interesting information about the company and their products. With the companies' values being patient focus, innovation, integrity, collaboration and superior performance they are world leading in their areas of expertise (Rare & serious diseases, vaccines, iron deficiency & nephrology).

After lunch we had the opportunity to learn more about the people and work of the ARTORG center of the University of Bern.



Located right next to sitem-insel and partially even in the same building, seven different focus areas presented themselves to us. As the ARTORG's activities range from AI for blood sugar tracking, over musculoskeletal biomechanics to hearing research, there was something interesting for everyone. The fully equipped "lab home" to track movement patterns of elderly people and the plastic food used to train AI models to recognize carbohydrate content of meals are just two of the things we will remember about the creative and smart approaches used at ARTORG.

To conclude our day in the Swiss capital, we enjoyed an amazing Apéro at a Beach Bar on the legendary "Grosse Schanze" right next to the train station.

We are very happy with the successful event, and we hope that we were able to give YS members the chance to get to know Berne as a center for biomedical research and industry. Also, we hope to have improved our visibility as an organization for young members of the biomedical research community in the so far underrepresented Berne.

Such events are only possible due to the efforts hosting institutions and companies put into it. Many thanks to Julie Risse and Mark Illi from sitem-insel, Marco Cavallari and Jonas Schaefer from CSL Behring, and Monika Kugemann as well as all presenters from ARTORG. Not only did we learn a lot that day, but we also had a lot of fun listening to your enthusiasm for your respective work. Also, we want to thank our SSB+RM parent organization for all the support. And finally, a big thank you to our sponsors the AO Research Institute Davos, Zeiss and Exabone for their financial support.



7th YS Symposium

On the 17th of January, 2025, young researchers from all around Switzerland came together at ETH Zurich for the 7th edition of the SSB+RM Young Scientist Symposium. The goal of this yearly event was to give young researchers the opportunity to present their work, network with peers and engage in research discussions. As the presenters are usually master students, PhD students or early postdocs, for many of them this is the first time they give a research talk or present a poster. The symposium is therefore a valuable experience for them to gain confidence in presenting and to enhance their skill to talk about research.

Attendees were affiliated with a variety of institutes, many of them Zürich based (ETH Zürich or University of Zürich). Also, people from the AO Research Institute Davos, Empa St. Gallen, University of Basel, and Bellinzona Institutes of Science were among the attendees.

One highlight were the keynote talks given by Prof. Maartje Bastings (EPFL Lausanne) and Prof. Jörn Dengjel (University of Fribourg), who introduced us not only to their lab's work but also talked about their career paths. Maartje Bastings highlighted how flexibility always limits specificity when it comes to selective material-material interactions, while Jörn Dengjel pointed out the huge potential lying in the use of mass spectrometry methodologies for biomaterial research. Thank you both for taking the time to travel across Switzerland to join our event.

In addition to our two keynotes, there were seven oral presentations of 15 minutes each (incl. Q&A) and a block of 10 two-minute rapid-fire presentations. Moreover, the symposium displayed 24 posters showing research covering biomaterial topics, but also regenerative medicine or infection biology.

A jury composed of more experienced researchers evaluated the orals, rapid fires and poster presentations and assessed them carefully. The awards for best oral presentation went to Esma Bahar Tankus (University of Basel), whereas second place went to Jamie Pietrantuono Nepomuceno (ETH Zurich). For the rapid fire Fatemeh Safari (AO Research Institute Davos) won first place and Lisa Krattiger (University of Basel) got second. The best poster presentation was given by Till Strunk (University of Basel) and Vibuja Manichelvan (ETH Zurich).

Next to all the talks, we also had a fun quiz that people could fill out throughout the day including estimating the number of Eppendorf's in a jar or finding hidden SSB+RM YS logos around the venue. The person who guessed all numbers the closest was Puk Kwant from the AO Research institute in Davos, winning a 50 CHF voucher for Coop.

To conclude the symposium, we met at the bQm bar for drinks and snacks, to finish with some socialising in a relaxed atmosphere.

Such events are only possible thanks to the support provided by the following institutions and individuals:

Our profound gratitude goes to the SSB+RM parent organization, especially to its president, Dr. Markus Rottmar, for their unwavering support in all our endeavors. Also, we would like to thank our sponsors Exabone, ZEISS and the AO Research institute for their financial support. Additionally, we would like to thank ETH Zurich for supplying the infrastructure to host this event.

We want to express our thanks to our jury members: Zhen Li from AO Research Institute Davos, Nunzia di Maggio from the University of Basel, Kongchang Wei from Empa, Stefan Mommer from ETH Zurich, Maria Mitsi from the University of Zurich and Simone Bersini from EOC Bellinzona.

We are happy about how the event went and are already looking forward to the next symposium in a year!



Upcoming Events you shouldn't miss

YS Lab Networking Event

Ideal for those who want to make more of their stay in Lausanne for the Society's annual meeting, you can take this opportunity to learn more about the labs operating at EPFL, where the 29th Annual Meeting will be hosted. This YS Lab Networking event will take place on Wednesday, 20th August starting at 2 pm. Spaces are limited, so don't wait too long to [book your place here](#) or contact the [Young Scientists](#) for more information.

29th Annual SSB+RM Meeting

This year's Annual SSB+RM Meeting entitled "Excellence in biomaterials" will be a shared event, co-hosted with the EPFL's Institute of Bioengineering (IBI) and takes place at the Rolex Learning Center on 21st-22nd August. Organizers Maartje Bastings and Li Tang (both members of the SSB+RM Executive Committee) have secured an exciting lineup featuring Prof. Kam Leong (Columbia University, USA), Prof. Carlijn Bouten (Eindhoven University of Technology, Netherlands) and Prof. Cole DeForest (University of Washington, USA) as keynote speakers and four outstanding invited speakers.

In this special setting and to showcase research from the "classical" SSB+RM community as well as from EPFL, oral contributions will be pre-assigned rather than selected from submitted abstracts. However, students and postdocs are highly encouraged to contribute to the meeting with a poster presentation and the two best posters will be awarded the "David Wendt Memorial Poster Award" and the "Exabone Poster Award". So, don't hesitate and submit your abstract for a poster presentation until 15th July!

The detailed program, links to the registration, abstract template, abstract submission and all deadlines can be found [on the website](#).

But wait, there's more: This two-day conference also includes a dedicated YS session on Thursday morning featuring selected talks and a Career Panel Discussion. To register, simply select this extra item during the registration for the main event and voilà!



Other Biomaterials & Regenerative Medicine-Related Events

Events in Switzerland:

- European Healthcare Forum for Additive Manufacturing, <https://ehfam.eu/>, 26 –27 June 2025, FHNW Campus MuttENZ, Basel
- Three-country conference [Biomedical Engineering BMT-2025](#) 'Joint Conference of the German Society for Biomedical Engineering and the Austrian and Swiss Societies for Biomedical Engineering' will take place 9.-11. September 2025 at the FHNW campus in MuttENZ. More than 900 participants are expected at Europe's largest event for biomedical technology!
- [NanoBiotech-Montreux Conference](#), 19-22 October 2025; "a unique human-scale conference at the frontiers of Micro- and NanoTechnology and Biological and Medical applications"

Events abroad:

- Not far and likely well-visited by SSB+RM members: the [34th Annual Conference of the European Society for Biomaterials \(ESB\)](#) will take place in Torino, Italy on 7-11 September 2025.

Featured EC-Member – Nunzia Di Maggio

Nunzia is a project leader and lecturer at the Department of Biomedicine and the Department of Biomedical Engineering at the University of Basel. She has joined the Executive Committee in 2023. As our treasurer, she is on top of the society's finances and we are thrilled to have her on our team!



Can you tell us more about your daytime job and how you got there?

I am project leader in the Regenerative Angiogenesis group of the Department of Biomedicine at Basel University. After graduating in Pharmaceutical Biotechnology at the university of Bologna, I obtained my PhD in Experimental Medicine from the University of Basel. During my first postdoc in the group of Tissue Engineering in Basel, I investigated the biology of mesenchymal stem cells (MSC), identifying key regulators of MSC self-renewal and their implications for bone regeneration and tissue engineering. In 2015 I obtained independent funding from the Swiss National Science Foundation as Principal Investigator of a project on the molecular crosstalk between osteogenesis and angiogenesis. This allowed me to obtain my current position in the Regenerative Angiogenesis group, where we investigate biology-inspired and biomaterial-based approaches to combine rapid vascularization and efficient osteogenesis for bone regeneration.

Can you describe your typical working day for us?

My typical working day is mainly busy with meetings to plan experiments and to discuss results with the students I supervise. I try to regularly dedicate part of my day to manuscript writing and literature reading (although sometimes not that easy, especially if the time slot is too short). I really feel lucky to still help my students from time to time with bench work and troubleshooting, it's still a lot of fun ☺

What do you like to do for non-work-related fun?

I practice yoga almost every day. Being on the mat brings me to the present moment and teaches me how to slow down, to listen and to accept. I like to hike (I have several favorite spots in the Swiss mountains) and I also love to go to art/design exhibitions (Art Basel is always on my list). I learnt traditional Italian cooking from my grandma and my mum, but, being a scientist, I like to experiment, trying spices and recipes from all over the world.

Have you seen any good movies/series lately?

At the moment, we are watching "Lost" with my daughter (she is 15 ☺). We are totally addicted to the plot (a mix of science fiction and mystery), but the best thing is how the different characters and their stories are portrayed. It's a bit old-style, but I would really recommend it if you are fascinated by parallel/alternative lives and time travels.

What would be your dream travel destination (where you might or might not yet have gone to)?

Last summer we have been to Namibia for a self-drive safari. I was really impressed by the diversity of landscapes and by the beauty of the desert. Seeing wild animals in their natural habitat was simply unforgettable. So, next on the list is Botswana and in particular the Okavango Delta (UNESCO World Heritage site and named as one of the Seven Natural Wonders of Africa), which is a sanctuary to some of the world's most endangered animals and birds.

What do you enjoy most about being part of the SSB+RM?

When I joined the EC of the SSB+RM I was immediately impressed by how the EC members are dedicated to advancing the field of biomaterials and regenerative medicine in Switzerland. Being part of the society offers me the opportunity to contribute to the common goal of promoting research, innovation and education.

Which aspect of working on the SSB+RM is most rewarding to you?

I am honored to have been invited to give my contribution on the Board. It is great to be able to help our exciting community to have a common house, where to meet and exchange through all the SSB+RM events. The role of treasurer is quite practical, but from the first day I was included in all discussions, and I felt immediately part of the society. I also find extremely important that SSB+RM supports young scientists through motivating and inspiring activities.

What is your favorite (bio)material and why?

In the last years we have been working quite extensively with fibrin. Fibrin is a natural product of blood coagulation and provides an ideal matrix for the physiological presentation of angiogenic signals. We developed an optimized fibrin hydrogel-based platform to engineer signaling microenvironments for controlled vascular growth. We envision it as a smart tool to investigate fundamental biological mechanisms and to develop improved treatment strategies.

What's your online rating and review of SSB+RM activities? (example: 4 out of 5 stars, would recommend to a friend / would join again...)

Definitely 5 out of 5 stars. The SSB+RM activities are a stimulating and friendly environment to meet new people passionate about biomaterials and an excellent opportunity to exchange ideas. I recently participated to the last Young Scientists Symposium, and it was great to see so many students explaining their projects with such enthusiasm and interacting with each other. I would definitely recommend the SSB+RM events!

What has the SSB+RM been cooking?

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