



Newsletter 8 | January – March 2022

Highlights and updates from the Cluster of Excellence Living, Adaptive and Energy-autonomous Materials Systems (*livMatS*)

Dear *livMatS* Community, dear Colleagues and Friends,

The past months have been very busy at *livMatS*. In February, a virtual meeting with our Scientific Advisory Board bore very fruitful discussions. It laid the foundation for a full on-site meeting, scheduled to take place in the summer of 2022 in Freiburg. In addition, the DFG held its second site visit at the cluster. The DFG representatives were impressed by the cluster's progress, and we are very grateful for their valuable insights and advice to help us advance the *livMatS* vision. The cluster's second internal project funding round will be paramount to this vision – we are excited to see which innovative ideas will emerge from the project call at the end of this month.

Besides strategic discussions and deliberations, there was also reason to celebrate: With a ceremonial groundbreaking, [the construction of the *livMatS* Biomimetic Shell @ FIT](#) recently got underway. In the future, the pavilion will provide the opportunity for many exciting research projects with our colleagues from the Stuttgart cluster of excellence IntCDC, which we are very much looking forward to.

The *livMatS* Spokesperson Team
Jürgen Rühle, Anna Fischer, Thomas Speck

News

Call for Junior Research Group Leader Published



Agnes Pockels
Junior Research
Group Program

livMatS has published an international call for a female Junior Research Group Leader within the cluster's Agnes Pockels Program. The intended focus of this group includes the areas of technology assessment and / or sustainability research. We would be pleased if you pass on the call to suitable female researchers. [Read More](#)

Third Master Lab Colloquium Takes Place



On March 18, the third Master Lab Colloquium took place at FIT. Twelve Master students from five different study programs capped their projects with presentations and discussions. The talks reflected the interdisciplinary research program of *livMatS* and included topics ranging from experiments on metamaterials to potential applications in the field of 3D printing to investigations on ethical and psychological aspects of life-like materials systems. If you have questions on the Master Lab, contact *livMatS* Graduate Coordinator [Gregg Dubow](#).

Groundbreaking for *livMatS* Biomimetic Shell @ FIT



With a groundbreaking ceremony on March 10, the construction of the *livMatS* Biomimetic Shell @ FIT has started. At the building demonstrator, designed by the IntCDC Cluster of Excellence at the University of Stuttgart, scientists from the Stuttgart Cluster and *livMatS* will research sustainable materials and construction methods. [Read more](#)

Young Researchers Meet for Third *livMatS* Boot Camp



livMatS held its third young researcher's boot camp. PhD students of the cluster had a day of talks and discussions centered on the topics of data management and science communication. On the second day of the event, they gained their first practical experience in communicating their own research. [Read more](#)

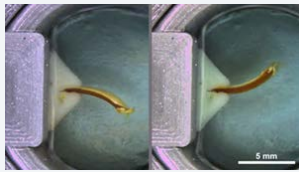
Céline Calvino Receives Funding from the Baden-Württemberg Stiftung



Dr. **Céline Calvino** will receive nearly 469,000 euros in the "Internationale Spitzenforschung" program. With this program, the Baden-Württemberg Stiftung specifically supports collaborations between researchers based in the German state and outstanding international scientists. Together with the American polymer scientist Prof. Dr. **Marc Hillmyer** from the University of Minnesota, she will develop new types of thermoset plastics that can be recycled using a combination of light and temperature stimulation. [Read more](#)

Highlighted Publications

Artificial Muscles Made of Proteins

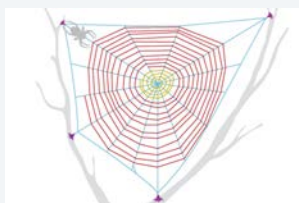


Dr. **Stefan Schiller** and Dr. **Matthias Huber** have succeeded in developing a muscle solely on the basis of natural proteins. The autonomous contractions of the material can be controlled with the help of pH and temperature changes. They published their results in the journal *Advanced Intelligent Systems*. [Read more](#)

Further Publications



Livanec, S., Stumpf, M., Reuter, L., Fenn, J., & Kiesel, A. (2022). Who's gonna use this? Acceptance prediction of emerging technologies with Cognitive-Affective Mapping and transdisciplinary considerations in the Anthropocene. *The Anthropocene Review*, 20530196221078924. doi: 10.1177/20530196221078924 [Read more](#)



Ramezaniaghdam, M., Nahdi, N. D., & Reski, R. (2022). Recombinant spider silk: promises and bottlenecks. *Frontiers in Bioengineering and Biotechnology*, 226. doi: 10.3389/fbioe.2022.835637 [Read more](#)

[Find all livMatS publications here](#)

Upcoming Events



Apr 13 2022
livMatS Colloquium
Prof. Steve Beeby |
University of
Southampton
Triboelectric Mechanical
Energy Harvesting



Apr 27 2022
livMatS Colloquium
Prof. Ali Dhinojwala |
University of Akron
Role of Surface
Roughness in Adhesion
and Friction and How
Nature Tackles this
Challenge



April 28 2022
Writer's Studio
Golden Days
All-day event for PhDs
with structured writing
blocks

The *livMatS* Events Calendar

We welcome feedback and comments on the newsletter and suggestions for the next issues (pictures, texts or topics). Please contact sonja.seidel@livmats.uni-freiburg.de.

Living, Adaptive and Energy-autonomous Materials Systems (*livMatS*) is an interdisciplinary, DFG-funded Cluster of Excellence at the University of Freiburg.



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