

Dear reader,

A critical problem for electric mobility would be solved if electric car batteries could be charged in a matter of seconds. This might seem utopian, but Dmitry Momotenko believes it can be achieved. The Oldenburg chemist is developing a new 3D printing technique for nanoscale metal structures which he hopes will pave the way for batteries with radically shorter charging times.

Momotenko is one of the outstanding young researchers we introduce in this magazine: women and men who shake things up in innovative fields such as molecular ecology, psychoacoustics and human geography, making their mark with exceptional scientific achievements, attracting top-level third-party funding and assuming leading roles in large collaborative projects.

In Germany, academics who conduct independent research but have not yet been given tenure are known as “Nachwuchsforschende” meaning junior scientists or early career

researchers. These terms can be misleading, because at this point in their careers they are already highly qualified and have accomplished a great deal. We have numerous outstanding examples of academics of this level at our university – reason enough to take a closer look at the valuable and exciting work of some of these aspiring scientists.

Along the way we will lead you into the world of sounds and noise, which is where hearing researchers Martin Bleichner and Kai Siedenburg spend most of their time. Bleichner measures the perception of noise in everyday life with mobile EEG devices he has developed himself; Siedenburg is interested in beautiful sounds and aims to optimize the music listening experience for people with impaired hearing.

Silke Laakman works with fascinating new methods for measuring marine biodiversity. Using only water samples and the genetic material they contain – known as environ-

mental DNA –, she and her team are able to measure the biodiversity of marine communities, identifying species from psyllids to porpoises.

Interdisciplinarity is at the heart of Leena Karrasch’s work. A committed sustainability researcher, her studies on adaptation to the consequences of climate change combines theories and practices from the natural and social sciences and delivers results that are incorporated into local planning.

Also in this year’s issue: what hidden information resides in the smallest building blocks of language; how can digital assistants help the elderly retain their independence; the influence of the military on prisons; and the often overlooked connections between Christianity and racism.

We wish you a stimulating read!

The EINBLICKE editorial team

