

TOBeATPAIN Winter School 27-29 January 2021 (Online meeting due to COVID restrictions)

Host: Medical University Innsbruck (MUI)

Review by Jeiny Luna-Choconta ESR6

The Winter School was organised by my supervisor Michaela Kress and ESR representatives Rita Silva, Xhoana Lama, Patricia Garcia Fernández, and Anutosh Roy. The first day started with an introduction of microglia and pain mechanisms by our coordinator Professor Marzia Malcangio who set the stage for several outstanding researchers including Professor Richard Ransohoff who summarised his seminal work in the *microglia biology* field. Professor Marco Prinz introduced novel *hexb-based tools for targeting microglia cells* and his results *from single cell sequencing. Astrocytes and their important in homeostasis, astrocytic and neuronal interactions* were discussed by Professor Ru-Rong Ji. Professor John Hardy's, and Dr. Ray Chaudhuri's presentations linked the basic science lectures on neuroinflammation, with the clinical context where microglia were discussed to be relevant for *pain in Alzheimer's and Parkinson's disease*. In summary, the first day of the winter school was a tsunami of scientific information on neuroinflammation and pain. Renowned scientists shared their research with us in the morning of the second day: Professor Hans-Georg Schaible focused on *osteoarthritis as the most common developing pain disorder*, Camila Svensson presented their striking new data introducing *transferable auto-antibodies for fibromyalgia pathogenesis*, and Professor Hermona Soreq proposed *RNA fragments as novel agents involved in post-stroke pain*. In the afternoon, TOBeATPAIN members participated in a *team dynamics training* with Helga Grupe, where the roles of team members and the importance of communication within research teams were introduced and discussed. Peripheral neuropathies were the topic of the third day: Professor Claudia Sommer presented a *clinician's perspective of neuropathic pain disorders*, followed by Professor Angelika Lampert, who showed us *human models based on induced pluripotent stem cell (iPSC) for translational research*. Finally, Professor Theodore J. Price gave an interactive presentation about *molecular profiling and human nociceptors in chronic pain states*. He also was available to discuss the impact of innovation and entrepreneurship with ESRs in a round table debate. Finally, minilectures on entrepreneurship and intellectual properties were also the topic of a Kahoot quiz in which Jeiny Luna-Choconta, George Sideris-Lampretsas, and Silvia Fanton scored best and receive a voucher for a data analysis camp. In short, the TOBeATPAIN winter school 2021 was amazing, and I truly look forward to the next meeting in September hoping that we can meet in person by then!