

“In vitro adipose tissue engineering using adipose derived stem cells and collagen-based scaffolds combined with hyaluronic acid” Sanja Stojanovic/Syamend Saeed, 2017



## Scientific outcome

*Soft tissue regeneration based on stem cells application represents a big scientific challenge nowadays. In the sea of new materials intended for tissue engineering, it is difficult to choose the appropriate one that will meet all the criteria for potential application in regenerative medicine. The aim of our project was to artificially create adipose tissue in vitro using newly engineered collagen-based scaffolds combined with hyaluronic acid and adipose-derived stem cells, for soft tissue regeneration purposes. During our exchange, we characterize the scaffolds on an electron microscope, isolated and seeded the cells onto newly created scaffolds and examined adipogenic differentiation and adipose tissue formation in vitro, employing different methods and techniques. We have expanded the initially planned experiment and started with new in vivo experiments to examine subcutaneous tissue reaction on created scaffolds. After exchange finished, we analyzed the obtained results and set up the foundation for joint publication and future collaboration between our two institutes in the field of tissue engineering.*

## Interdisciplinary and social outcome

*During the exchange, we spent one week in Nis and one week in Berlin working together on our joint project. We learned new methods and techniques, exchange some ideas, meet other people at our two institutions and started with experiments and our joint collaboration. Beside the scientific activities and experiments in our laboratories, we had a nice time visiting Nis and Berlin, sightseeing and enjoying nice traditional food and atmosphere in restaurants. We met new people in our two cities as well as similarities and differences in lifestyle between our two countries and cultures. yESAO Exchange Award gave us the opportunity to collaborate together and exchange the scientific knowledge in our joint research area. Also, I have met very nice people at ESAO conference in Vienna and I am looking forward to continue friendship and cooperation with colleagues from yESAO group.*