

Werner Remmele

Areas of Interest

- As a Parkinson patient, I'm basically interested in any technology that can lead to a cure of the disease or alleviate the problems associated with this.
- Methods and procedures for the early and reliable diagnosis of Parkinson's disease as well as the clear differentiation from other neurodegenerative diseases such as MSA. Consequently, the need to develop early treatment methods that slow the progression of the disease or prevent the outbreak of the symptoms has to be considered. In addition, the psychological impact of early diagnosis can not be neglected.
- Non motor symptoms: Parkinson's is a progressive neurodegenerative disease, however it shows multiple individual effects on the patient. Despite different histories and symptoms, it should be possible to develop a model for the disease from a sufficient amount of patient data, which could eventually even be used for early diagnosis.
- Validation of neurological approaches by neuro computing. Many processes in the brain can today be simulated by neural networks. Similarly, it is possible to reproduce malfunctions of the brain as well. This approach offers the potential for accelerating research. Examples are the 'Human Brain Project' or the complete neural replica of *C. elegans*.

Expertise

During the time of my illness, I have developed my medical and neurobiological basic knowledge about the causes and course of the disease, yet I believe that I have still to educate myself. I am very interested in scientific lectures of this kind, but most likely lack the knowledge necessary to safely determine relevance and novelty. My professional expertise lies in communication and computing - also neuro computing - and my interests reflect this.

Conclusion

I hope that my interests and my scientific background will be sufficient to understand the sessions prioritized by the members of the Edinburgh Branch and eventually transfer the findings back to the branch.