

Lecture presentation

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## Computational neuroscience and systems biology: the past, the now and the future

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Despite similar computational approaches, there is surprisingly little interaction between the computational neuroscience and the systems biology research communities. In this talk I reconstruct the history of the two disciplines and show that this may explain why they grew up apart. The separation is a pity, as both fields can learn quite a bit from each other. Systems biology is a better organized community which is very effective at sharing resources, while computational neuroscience has more experience in multiscale modeling and the analysis of information processing by biological systems. In the second part of the talk I will speculate about the future of computational neuroscience, both in its relation with the neuroscience field and with systems biology. I will recommend that where possible we should adapt our practices to current systems biology standards.