

## **Neurobasis of motor skills in primates**

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Motor functions in humans often lateralized to the left hemisphere. For example, a majority of humans are right-handed which presumably reflects the left hemisphere dominance for motor skill. More recently, studies suggest that not only execution but the motor planning of motor actions by both the left and right hands may similarly be left lateralized in humans. In this talk, I discuss the evolution of lateralized motor functions in nonhuman primates by summarizing behavioral data on handedness, motor skill and tool use in chimpanzees. I further present evidence asymmetries in oro-facial motor control, and their association with manual skill. Finally, I present data on the neuroanatomical and neurofunctional correlates of manual preference and motor skill asymmetries in chimpanzees.