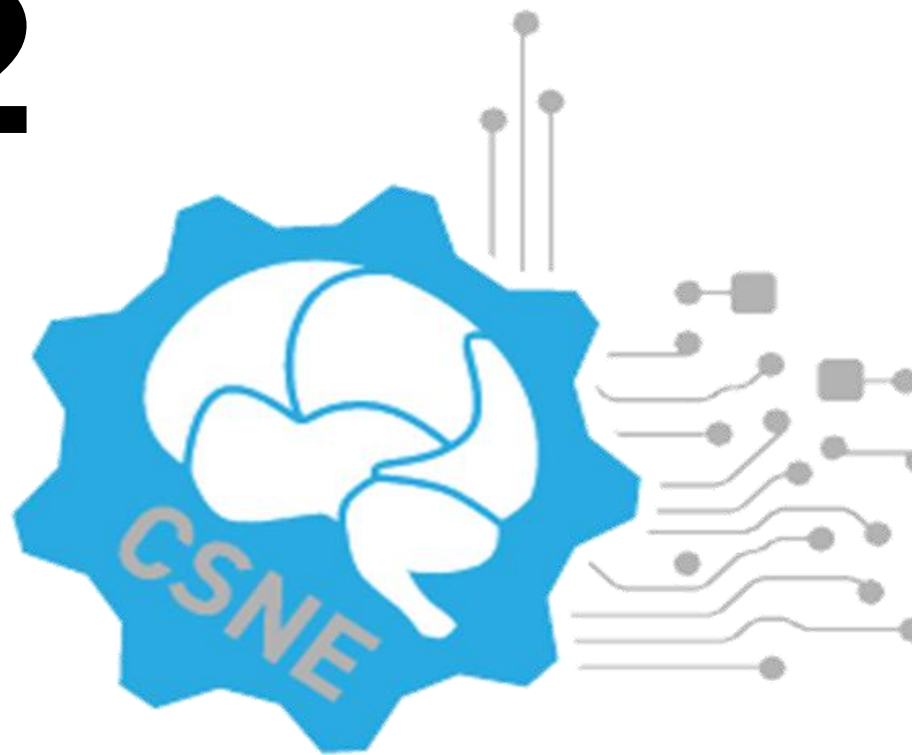


Neuroscience for Tibetan Buddhist Monastics

#28.02



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The Science for Monks program was established in 2001 as a partnership between the Sager Family Foundation and the Library of Tibetan Works & Archives (Tibetan Library). This program brings western scientists to India to conduct workshops to share concepts about western science with Tibetan monastics in exile. The monastics undergo decades of philosophical training that includes logic, debate, and contemplative practices. Neuroscience has been a featured topic within the workshops combining didactic teaching with a strong emphasis on scientific inquiry.

Science for Monks Leadership Workshops

Sarah, June 2008; Sarnath, January, 2009; Solan, May 2009; Mundgod, December, 2009; Bir, May, 2010 and May, 2011; Bangalore, January, 2012



To date, two cohorts of approximately 35 monastics each have participated in Science Leadership Workshops. During the workshops, western scientists have lead discussions about neuroscience that have focused on neuroanatomy, reflexes, memory, neurotransmission, the senses, learning and sleep. These topics are discussed using hands-on demonstrations and activities to reinforce concepts.



Two-point discrimination



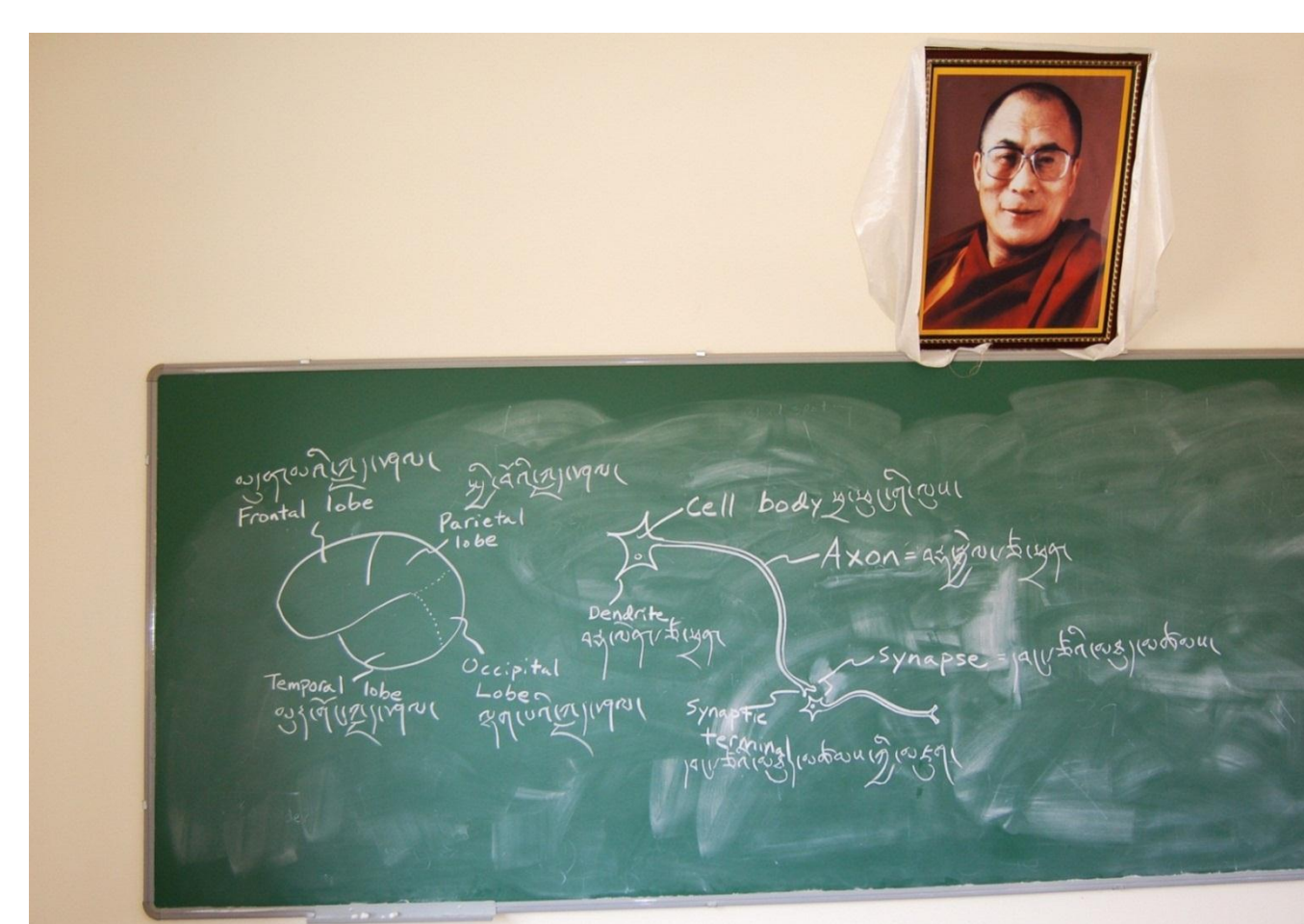
Discussing neuroanatomy



Taste testing



Temperature adaptation



Expert English-Tibetan translation by staff from the Tibetan Library helped bridge the language barrier between western scientists and the monastics. Many neuroscientific words without suitable translations in Tibetan have been created.

The monastic science leaders have reported:

- Topics they learned about in the workshops have rich connections with Buddhist philosophy and practice.
- Monks and nuns with strong backgrounds in Buddhist philosophical systems are best positioned to find dynamic points of intersection with neuroscience.
- Learning neuroscience allows them to explain various phenomena from perspectives of both Buddhism and neuroscience. Sharing both enriches the learning of their students.
- Buddhism may have useful explanations and approaches that are relevant to neuroscience educators. For example, there are many points of harmony in explaining sensory perception that add philosophical insights to the findings of modern neuroscience, including descriptions of consciousness.
- Forward thinking collaborations and open discussions can bring new understandings to the nature of mind, and provide a win-win for both monastics and neuroscientists.



Neuroethical case studies provided opportunities to explore the monastic's sense of compassion and their rich tradition of debate.

Neuroethical Questions for Debate

- Cognitive enhancement through drugs or electrical stimulation.
- Brain imaging for lie detection.
- Incidental findings for researchers.
- Knowledge of future neurological/mental disease.
- Selective memory removal.
- Manipulation by drugs or surgery to alter personality.
- Difference between an "abnormality" and "being different."

Some of the monastics who have participated in the leadership workshops have returned to their monasteries and have established science classrooms and laboratories to continue their own learning and to share science with the local monastic and lay community.



These Science Leadership Workshops provide intensive professional development that combines scientific content with an emphasis on educational philosophy and pedagogy. The Leadership Workshops provide training to groups of future monastic science leaders and create enduring indigenous science education leadership by training monks and nuns to be leaders of science education.



Acknowledgments: This work was made possible by the Sager Family Foundation through the Science for Monks project.

<http://www.scienceformonks.org>
<http://www.facebook.com/ScienceForMonks>