

CALL FOR PAPERS

Following a brain injury, such as stroke, individuals need to relearn lost skills (such as grasping) and learn new strategies to achieve goal-directed actions in daily activities. Yet the ability to learn and adapt is often disrupted.

Stroke interrupts brain networks that support learning. As such, it presents a unique opportunity to test existing dogmas about learning and their application to learning old skills and new strategies. In particular, it presents an opportunity to test not only the impact of a sudden, focal injury to the brain on cognition and learning but also the impact of new learning and relearning on brain networks and complex behaviours. Learning may be adaptive or maladaptive following stroke.

While evidence indicates people with brain injury can demonstrate improvement in specific trained skills, transfer to novel tasks and situations is limited. This has major significance when a person with brain-injury learns a new skill but fails to transfer this to daily life situations. The ability to learn may also be impacted at different times after stroke. It is important to get the sequence of learning right, thus impacting the timing of delivery of learning based interventions. The question is: how can we best monitor readiness for learning.

The overall aim is to bring together a themed collection of the state-of-the-art papers that advance the knowledge behind the topic of this special issue.

Through this special issue we aim to advance the current understanding of how people learn following brain injury. We invite papers that examine neural mechanisms, such as brain reorganisation, that support learning-facilitated improvements following rehabilitation interventions. We also ask what are the factors that are important in determining readiness for learning in individuals and/or predict ability to benefit from learning-based interventions. These questions are considered in the context of the recovery journey after a brain injury, recognizing that the impact of different factors will vary at different points in the recovery process.

We call on papers from across multiple disciplines and fields of study to contribute evidence pertinent to these questions. This may include preclinical studies as well as mechanism based rehabilitation studies. The editorial team especially welcomes submissions related to the topics and questions outlined above and detailed below. We encourage original research articles and systematic reviews that evaluate the current state of the art in this field.

Potential topics include but are not limited to the following:

- ▶ What are the biopsychosocial markers of readiness for learning following brain injury?
 - ▶ Learning is dynamic and timing is important. How can we best identify when an individual is ready to learn?
 - ▶ What are the factors that predict ability to benefit from learning-based interventions?
 - ▶ Plasticity and (secondary) neurodegeneration. Are they a contradiction that can interfere with functional recovery and learning?
- ▶ Learning and transfer following brain injury
 - ▶ How do brain networks adapt to support learning in the stroke damaged brain?
 - ▶ Do brain networks recruited differ following skill-based training and strategy learning?
 - ▶ Are transfers of training effects associated with specific brain regions or networks?
 - ▶ What are factors that contribute to individual differences observed in response to treatment?

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/np/lbim/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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