

## Elisa R Zanier

#### Researcher

IRCCS-Istituto Mario Negri, Milano

### **Bilateral Meetings**

- Thursday (1:30pm 6:00pm)
- Friday (9:00am 12:00pm)

#### **Description**

The Institute's main aim is to help defend human health and life. To achieve this goal, we need a fuller understanding of the innermost workings of living organisms; we need to know why diseases arise, and what happens inside an organism when foreign substances enter it. The Institute's research programs therefore span from the molecular level to the whole human being, and the findings help build up the basis for developing new drugs, and making existing ones more effective.

The main research headings are the battle against cancer, nervous and mental illnesses, cardiovascular and kidney diseases, rare diseases and the toxic effects of environmental contaminants. The Institute is also involved in research on pain relief and drug addiction.

Parallel to its biomedical investigations, the Mario Negri Institute runs training schemes for laboratory technicians and graduate researchers. It takes part in a range of initiatives to communicate information in biomedicine, on a general level and with the specific aims of improving health care practice, and encouraging more rational use of drugs.

**Organization Type** 

Other

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Italy

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Milano, via G La Masa 19 Google map

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Request

## Multimodal monitoring in experimental brain injury.

Modeling long-term cognitive outcome is extremely challenging. This reflects our incomplete understanding of how

traumatic lesions influence neural networks and brain functions. Direct longitudinal brain monitoring of pathophysiological processes would be helpful to understand mechanisms and timing of disease progression. We are seeking partners interested at developing miniaturized multimodal device where diagnostic capabilities are integrated to allow the online investigation of energy derangements, neuronal activity, and molecular events in experimental models of brain injury.

#### **Cooperation Requested**

- 1. Outsourcing co-operation
- 2. Investment/Financing
- 3. Technical co-operation

#### Request

### **Brain Repair strategies**

Virtual Reality in Neuroscience (scientific advisors)

Acute brain injury induces a series of neurorestorative events that include neurogenesis, gliogenesis, angiogenesis, inflammatory changes, synaptic plasticity and axonal sprouting. Unfortunately, these spontaneous restorative processes are largely ineffective for the extent of damage usually encountered after traumatic brain injury or other acute brain insults.

Potentially, however, an approach enhancing the neuroregenerative processes of the injured tissue could become a sensible therapeutic target.

We aim at developing a Cost-Effective Virtual Environment for stimulating brain plasticity processes and neurogenesis and improve functional outcome after acute brain injury in mice. We believe this approach would have a high translational relevance and if proven effective could easily be translated to brain injured patients.

TYPE OF PARTNER SOUGHT. We are seeking for a private or public entities interested at i) developing a mice virtual cave; ii) discussing the best virtual stimuli and environment to be delivered to foster brain repair after acute brain injury.

#### **Cooperation Requested**

- 1. Technical co-operation
- 2. Investment/Financing
- 3. Outsourcing co-operation

#### Offer

# Traumatic brain injury, experimental models-scientific consulting

Animal models of acute brain injury. Stem cell transplantation. Therapeutic strategies.

We offer scientific consultation in the context of traumatic brain injury (TBI). This includes realization of experiments

(focused on strategies for brain protection and repair), and advanced analysis of brain damage and resolution by in vivo (MRI- 2 photon microscopy) and port-mortem analysis.

We also offer an outstanding expertise in the design, and scientific evaluation in the field of stem cell transplantation for acute brain injury.

# **Cooperation Offered**

- 1. Outsourcing co-operation
- 2. Technical co-operation