Prof. Noel J. Buckley, Kings College London, member of the Selection Committee:

Scientific grounds for the assignment of the award to Dr. Silvia Bassani

The Renato Musto Young Researcher's Award is granted every year to early stage researchers under 35 years old and is dedicated to a scientist with multifaceted intellectual, cultural interests and passions. This year's award is dedicated to Neuroscience with focus on development of the nervous system.

Dr Silvia Bassani carried out her PhD as a Research Fellow in the laboratory of Dr. Passafaro's laboratory in the CNR, Institute of Neuroscience, CNR, Milan where she began her studies on characterising the cellular and molecular mechanisms underlying X-linked cognitive disorders and in 2009 obtained her PhD, for her studies on a XLMR- linked geneTM4SF2 and its interactions with PICK1 and regulation of synaptic function. In 2010 she was awarded a Career Development Fellowship to study "the plasticity and remodelling of CNS synapses" in the laboratory of Dr Yukiko Goda's in the Medical research Council Cell Biology Unit in University College London. In 2011 Silvia returned to the Institute of Neuroscience in Milan as a Research Fellow, to continue her research into "Unravelling PCDH19 molecular and functional role in Epilepsy with Mental Retardation limited to Females (EFMR)" and in December 2013 she became an Associate Researcher at the same institute.

Throughout her career, Dr Bassani has retained her focus on one of the biggest problems in neuroscience – how is synaptic connectivity remodelled in adult neurons and specifically how does this basic neurobiology enhance our understanding of intellectual disability. We have known for decades that there are acute mechanisms responsible for altering the topology and architecture of the synapse and chronic effects that ensure long-term maintenance of connectivity. We see more and more evidence that these processes are disrupted in neurodevelopmental disorders including ID, but also schizophrenia and autism spectrum disorder. Somewhere, a coherent explanation is necessary to link both acute and chromic effects. Dr Bassani's seminal contribution has been to bring these together by identifying key molecules that potentially coordinate activity between receptors at the cell surface and transcriptional activity in the nucleus. In fact, her later work identifying NeuroLSD extends the reach of her work to epigenetics. Considering the current focus of Pharma on targeting epigenetic readers and writers, this lends Silvia's work an exciting translational potential.

Silvia's work has been published in high impact journals including J. Neuroscience, Neuron, PNAS, Curr Biol., Nat Neuroscience and there are other in preparation and she was recognized when she received the: Neuroscience Research award in Mar 2014 from the CNR, an award bestowed in memory of the late great Nobel Laureate, Rita Levi-Montalcini.

This is an impressive record of achievement and the work that is already in the pipeline assures us of the trajectory of Silvia's career and for all these reasons, our committee had no hesitation in unanimously recommending Dr Silvia Bassani for the Renato Musto Young Researcher's Award.