

ERA evaluation 2011

Neuroscience, Psychiatry, Behavioral Science Panel

Swedish Medical Nanoscience Center

Overall assessment: The Swedish Medical Nanoscience Center forms an excellent constellation. It was founded in 2009 to focus on medical applications of nanotechnology. The Constellation is highly interdisciplinary, energetically and skillfully chaired by Prof. Agneta Richter-Dahlfors. The work of the groups has been pioneering and highly innovative.

Research quality and impact: The members of the constellation have excellent track records, with many publications in high-impact journals. Neuroscience forms just a part of the applications (the Constellation will be evaluated in another panel as well). The constellation has already adopted highly original and innovative approaches, for example in producing an “artificial nerve cell” that will free neurotransmitters and will be tested for spinal trauma and for application of GABA to spinal cord in neuropathic pain.

Future plans: The future plans include several innovative approaches. Given the skills and enthusiasm of the senior personnel, the possibility of completing the ambitious goals seems feasible.

Collaborations: The constellation has been actively promoting collaboration between several national and international top research teams in the field of nanomedicine, for example in initiating a Swedish “Nano East” collaborative network.

Future potential and opportunities: The work at the border of several disciplines has full potential for scientific, technological, and clinical breakthroughs both in neuroscience and in other fields of research (evaluated in another panel). The PI has a clear vision, enthusiasm and excellent leadership in developing this very new field. The work has just the right proportion of risk and innovativeness. This highly innovative bottom-up constellation deserves KI’s keen attention.

Overall assessment: *Excellent to Outstanding.*