Linda J. Noble (Haeusslein) obtained her undergraduate degree in physical therapy from the University of Utah and her doctoral degree in anatomy from the University of California at Los Angeles. She is currently Professor and Alvera Kan Endowed Chair, Departments of Neurological Surgery and Physical Therapy and Rehabilitation Science at the University of California, San Francisco. The Noble-Haeusslein laboratory is committed to a strong translational program that investigates the key determinants of recovery after traumatic injury to the developing brain and the adult spinal cord. To date, her laboratory has highlighted the unique vulnerability of the developing murine brain to trauma that is in part attributed to inadequate antioxidant reserves and the emergence of deficits in both cognitive function and socialization, deficits that are likewise seen in brain-injured children. Ongoing studies are defining those anatomical and biochemical substrates that contribute to these behavioral deficits with a long-term goal of developing therapeutics that are specifically designed for the brain-injured child, where injury likely disrupts those developmental processes that are needed to fully assume adult behaviors. Spinal cord injury, a second area of inquiry, relies on both pharmacological and genetic tools to define those secondary pathologic events that emerge in the acutely injured cord and give rise to long-term neurological deficits. Thus far, the laboratory has demonstrated that matrix metalloproteinases and in particular MMM-9 contribute to early vascular dysfunction, secondary demyelination and oxidative stress in the injured murine spinal cord. Efforts to block the early activation of MMPs have resulted in stabilization of the vasculature, reduction in oxidative stress and demyelination and long-term neurological recovery. Given these encouraging findings in a rodent model, ongoing studies are further validating an MMP inhibitor in dogs that sustain naturally occurring spinal cord injuries resulting from the sudden rupture of an intervertebral disk.

Dr. Noble-Hauesslein has been an active member of the Society for Neurotrauma and the Society for Neuroscience for over two decades. She has held the office of President, Vice-President, and Secretary of the National Neurotrauma Society and was a Co-Organizer of the First Joint Symposium of the National/International Societies in 2002. She serves on the Editorial Boards of the Journal of Neurotrauma, Development Neuroscience and the International Journal of Developmental Neuroscience and is a reviewer for a number of journals including the Journal of Neuroscience, Experimental Neurology, PNAS, and the Journal of Cerebral Blood Flow and Metabolism. Dr. Noble-Haeusslein is currently chair of the NINDS NSDA study section and has served on three Institute of Medicine Committees that have addressed the long-term consequences of traumatic brain injury, nutrition and traumatic brain injury and the long term effects of blast exposures. Her studies on traumatic brain and spinal cord injury are currently funded by the Department of Defense, the California Institute for Regenerative Medicine, and NIH/NINDS.