SPEAKER: Michal Novak
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TITLE: "Decoding of Tau Cascade in Alzheimer’s Disease Paved the Way to the Discovery of a Druggable Target in AD"

ABSTRACT:
Until recently, the complex Alzheimer’s disease tau proteome, with a vast pool of toxic and incidental moieties seemed to pose a challenge of irreducible complexity. We have identified a functionally important common denominator of pathogenic mis-disordered tau species that is preserved throughout the development of tau pathology—from pathological monomer to mature tangle, from Braak stage 1 to Stage 6. This denominator has been validated in vitro and in vivo as a suitable target for immunotherapy. Antibodies directed against it—both those raised by active vaccination and those administered as passive vaccine—were efficacious in preventing tau aggregation, tangle formation, and extending survival of transgenic animals. Phase 1 clinical trial has shown the active vaccine to be safe and immunogenic when administered to elderly AD sufferers.

NEXT UPCOMING SEMINAR: Wednesday May 27, 2015, – “Cell reprogramming and gene targeting technologies for in vitro disease modeling and innovative therapeutic approaches”, Vania Broccoli, Head “Stem Cells and Neurogenesis” Unit - Division of Neuroscience San Raffaele Scientific Institute

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