

Glycobiology World Congress

August 10-12, 2015 Philadelphia, USA

Alzheimer's disease rats, inhibit β -amyloid fibril formation

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Alzheimer's disease rats were developed by Taconic Biosciences, MPA. Development took 5 weeks. After this time, each of the 6 Alzheimer's disease rats was injected with NaH (3 mg/3 mL sterilized phosphate buffer saline, SPBS); 3 grams of NaH/gram of Rat body mass were used for injection. The controls were normal Rats, 6 of which were injected with 3 mL of SPBS per gram of Rat body mass. After 5 weeks, all rats were guillotined; the heads were removed and stored at -35°C for tissue culture. Cells were cultured following conditions described for human Alzheimer's disease cells and carried out in 6-well-tissue-culture-dishes each containing 4 mL of the following media: Astrocyte Basal Medium from Lonza adjusted to 15% (w/w) fetal bovine serum and fortified with L-Glutamine (5 mL), Ascorbic Acid (0.5 mL), Epidermal Growth Factors (1.25 mL), Insulin (0.5 mL) and Gentamicin Sulfate Amphotencin- β (5 mL). Cells grew in these media at 37°C under 5% CO₂ for 7 days. They were then stained with Congo Red. Figure IIIR displays Alzheimer's disease hippocampus cells with plenty of β -Amyloid tangles while Figure IVR has cells from the normal hippocampus cells with no tangle formation. NaH is therefore effective to inhibit β -Amyloid tangle formation in Alzheimer's disease.

Biography

Maria Longas has completed her PhD at New York University and done her postdoctoral training at Columbia University School of Medicine with Dr. Karl Meyer. She is a full Professor of Chemistry at Purdue University Calumet in Hammond, IN. She has more than 24 papers published in reputable journals, and has served as a reviewer for several journals.

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