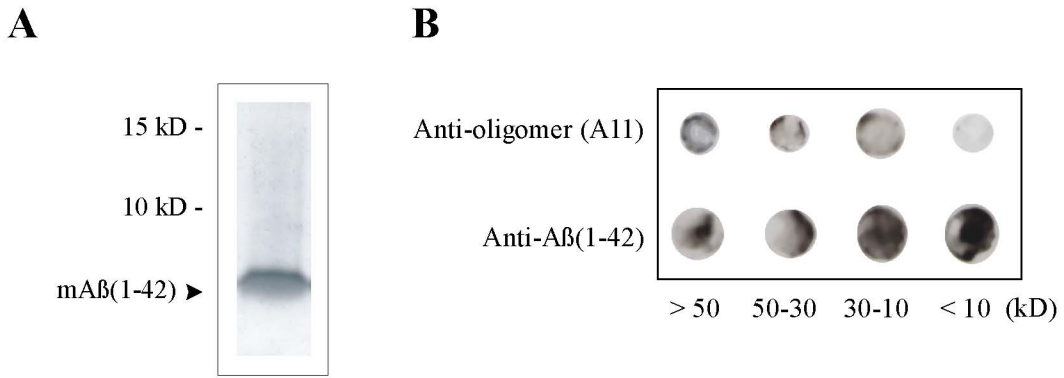
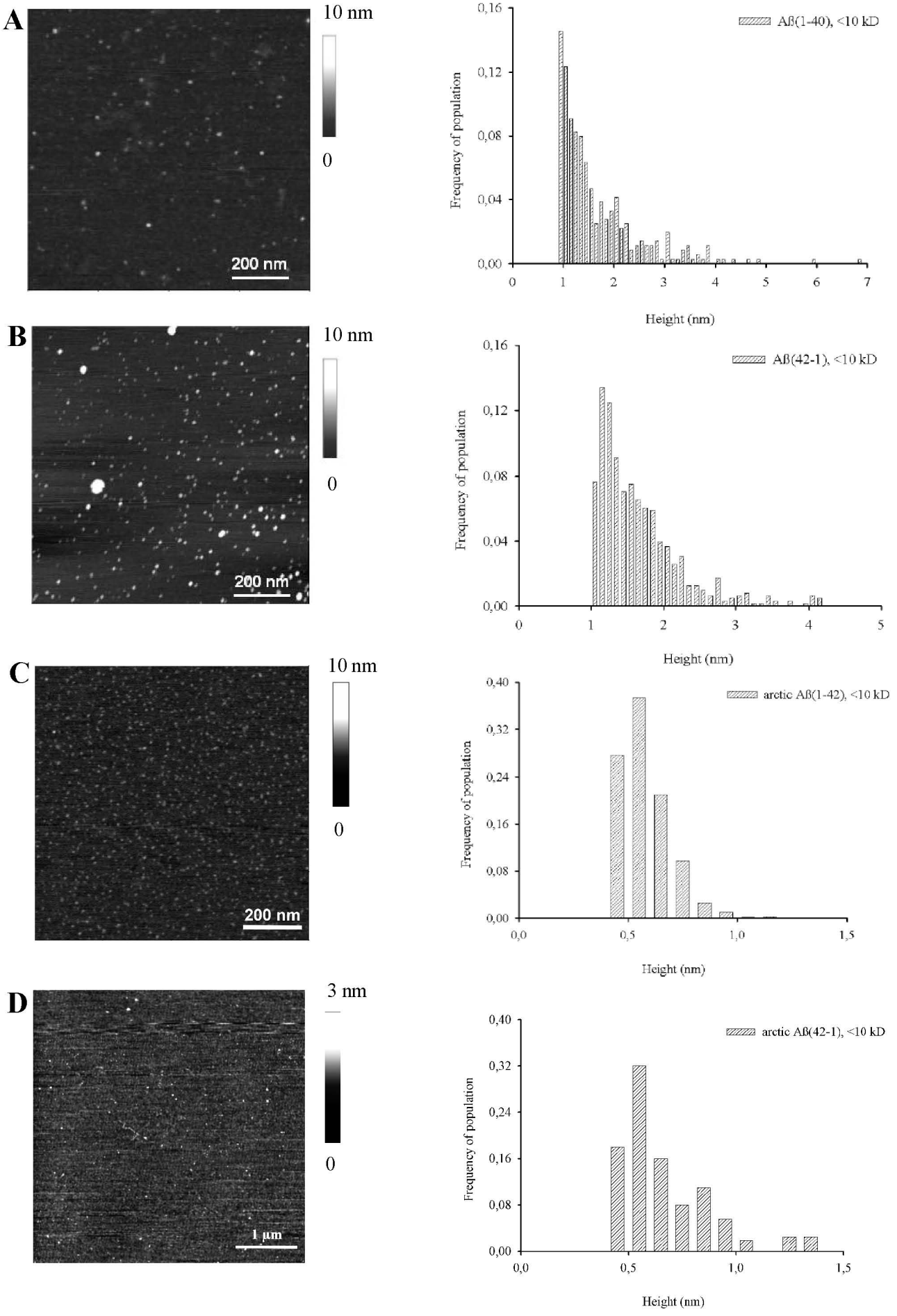
Supplementary Table 1. NMDA toxicity in pure cortical neuronal cultures in the absence or presence of Aß (1-42) monomers

Treatment	Number of dead cells
Control	25 ± 4.2
NMDA, 300 μM	42 ± 5.3*
NMDA + m Aß(1-42), 0.1 μM	27 ± 3.8
m Aß(1-42), 0.1 μM	22 ± 5.6

The number of dead cells determined by trypan blue staining in 3 random microscopic field per dish is shown. Values are means ± S.E.M. of 5 determinations. *$p < 0.05$ vs. all other determinations (One-way ANOVA + Fisher's PLSD).



Suppementary Figure 1. Characterization of Aß(1-42) monomers. (A) Low-mass Aß(1-42) fraction (<10 kD) was analyzed by SDS-Page. A single band at about 4 kD consistent with the size of a monomer was detectd by coumassie blue staining. (B) Dot blot analysis of the different Aß(1-42) fractions (0.6 µg each). The anti-Aß(1-42) antibody binds to all species, whereas the anti-oligomer A11 antibody does not bind the <10 kD fraction.



Supplementary Figure 2. AFM imaging of different Aß peptides. Representative images (left) and frequencies of species (right) in the <10 kD samples of Aß(1-40) (A), Aß(42-1) (B), arctic Aß(1-42) (C) and arctic Aß(42-1). The monomer fraction of Aß(1-40) consisted primarily of small globules 1.6 nm in height (Mean ± SD: 1.66 ± 0.84, n= 364). The monomer fraction of Aß(42-1) consisted mainly of small globules 1.6 nm in height (Mean ± SD: 1.65 ± 0.58, n= 626). The monomer fractions of arctic Aß(1-42) and arctic Aß(42-1) contained primarily very small globules 0.6 nm in height. The respective mean values were: 0.58 ± 0.11 (n= 1153), and 0.65 ± 0.19 (n= 104).