Electronic Supplementary Material (ESI) for Analyst

Stimulation and release from neurons via a dual capillary collection device interfaced to mass spectrometry

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Supporting Information
Figures S1–S4

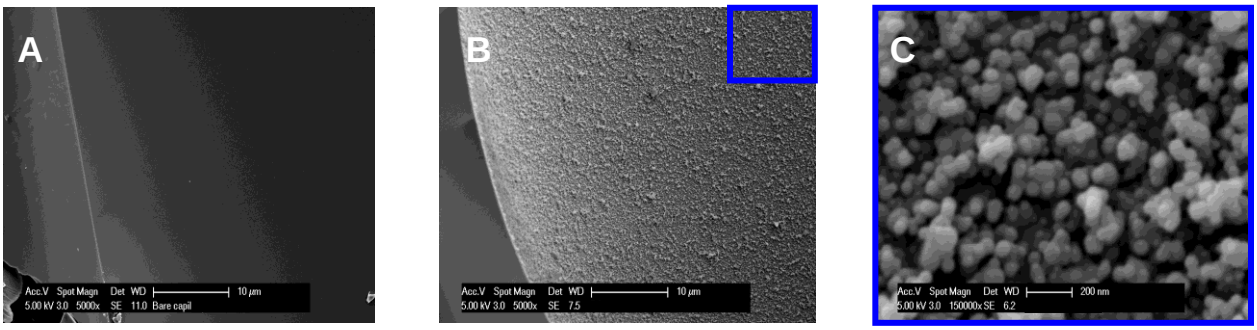

Figure S1. SEM images of the capillary inner wall **(A)** before and **(B)** after octadecyl modified silica nanoparticle deposition; **(C)** zoomed view of B.

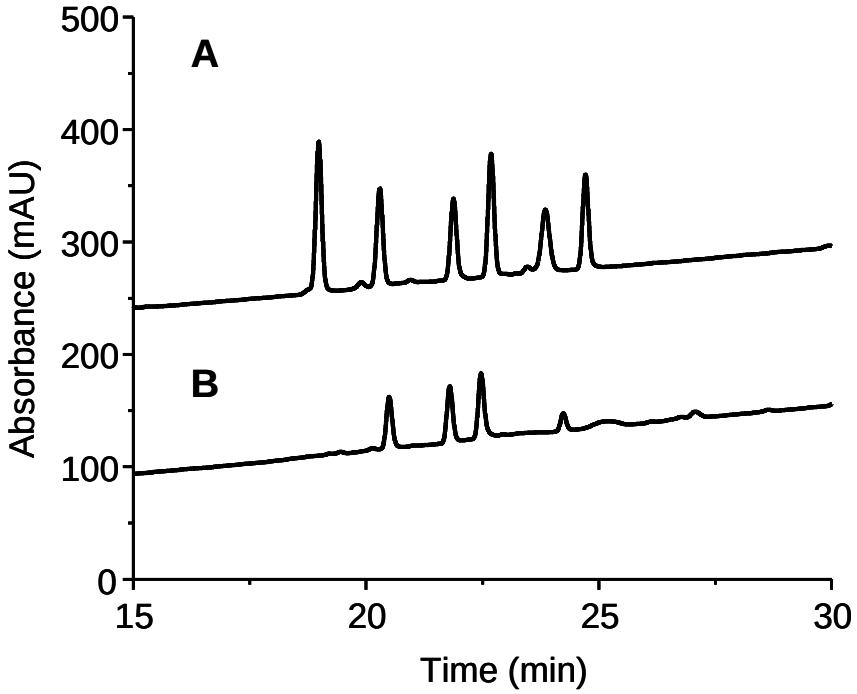

Figure S2. Comparison of the peptide collection efficiency from ASW using: **(A)** an OSND capillary and **(B)** an octadecyl-modified capillary without silica nanoparticles. The eluents from the columns were dried and redissolved in loading solution for CapLC-UV characterization. Peak identities (from left to right): angiotensin II, angiotensin I, substance P, bombesin, ACTH(18-39), and somatostatin.

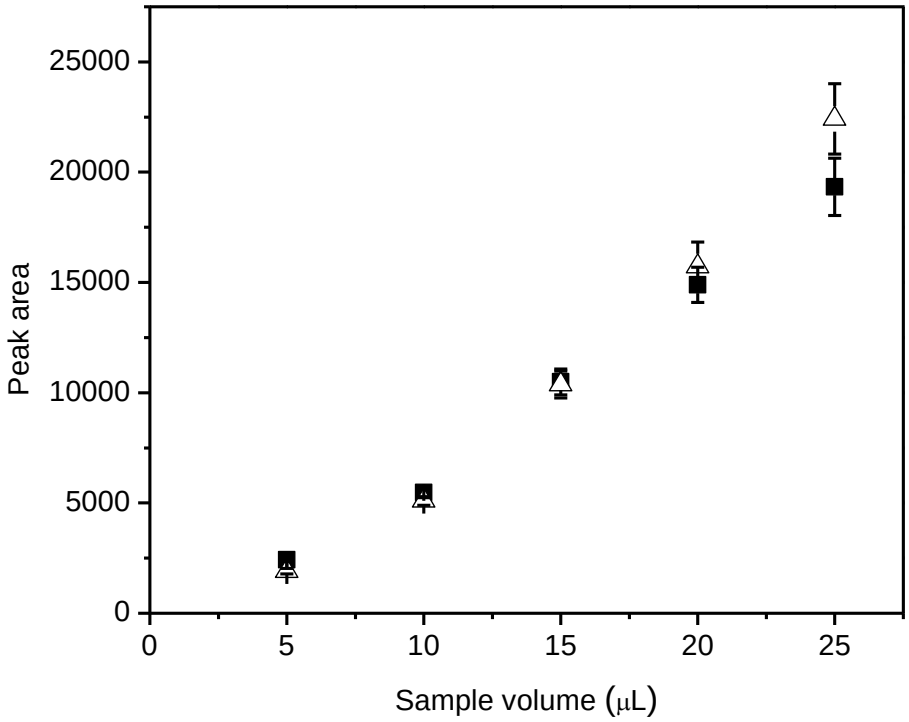

Figure S3. Binding curves for substance P (shown as filled squares) and bombesin (shown as empty triangles) using the OSND capillary. Substance P and bombesin were prepared in ASW at 3.0 and 2.5 μM, respectively. Each data point represents average extraction results from three individual columns ± standard deviation.

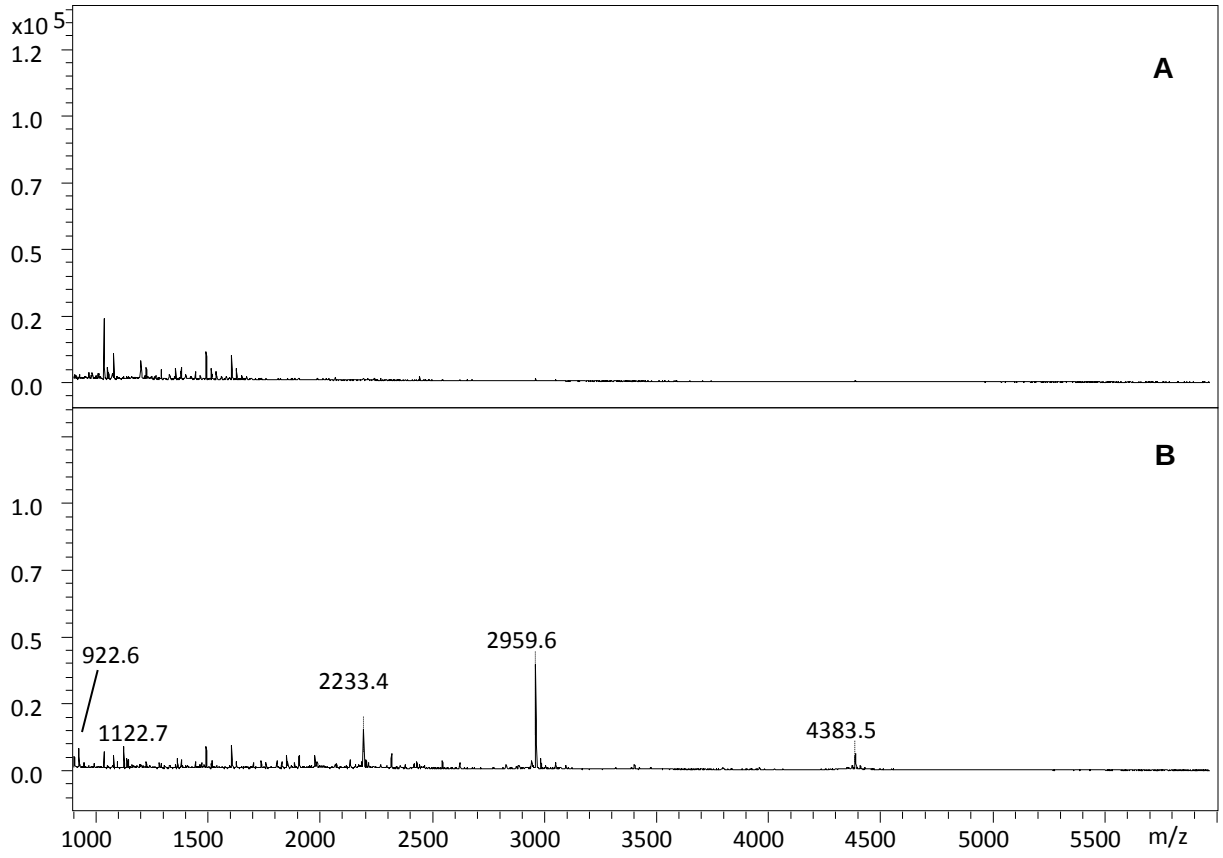

Figure S4. MALDI MS spectra from bag cell cluster releasates **(A)** pre-stimulation (showing few peaks) and **(B)** during/after KCl stimulation of the cluster showing α-BCP(1–7) at *m/z* 922.6, α-BCP at *m/z* 1122.7, AP(1–20) at *m/z* 2233.4, AP at *m/z* 2959.6, and ELH at *m/z* 4383.5.