SUPPORTING INFORMATION

Spatially Resolved Neuropeptide Characterization from Neuropathological Formalin-Fixed, Paraffin-Embedded Tissue Sections by a Combination of Imaging MALDI FT-ICR Mass Spectrometry Histochemistry and Liquid Extraction Surface Analysis-Trapped Ion Mobility Spectrometry-Tandem Mass Spectrometry.

Yarixa L. Cintron-Diaz[a], Mario E. Gomez-Hernandez[a], Marthe M. H. A. Verhaert[b], Peter D. E. M. Verhaert[b], and Francisco Fernandez-Lima[a,c].

[a]*Department of Chemistry and Biochemistry, Florida International University, 11200 SW 8th St., AHC4-233, Miami, FL 33199, United States.*
[b]*ProteoFormiX, JLABS@BE, Janssen Pharmaceutica Campus, Turnhoutseweg 30, B2340 Beerse, Belgium.*
[c]*Biomolecular Science Institute, Florida International University, 11200 SW 8th St., AHC4-233, Miami, FL 33199, United States.*

Email: fernandf@fiu.edu

Table of contents:

Figure SI1 ----------S2

Figure SI2 ----------S2

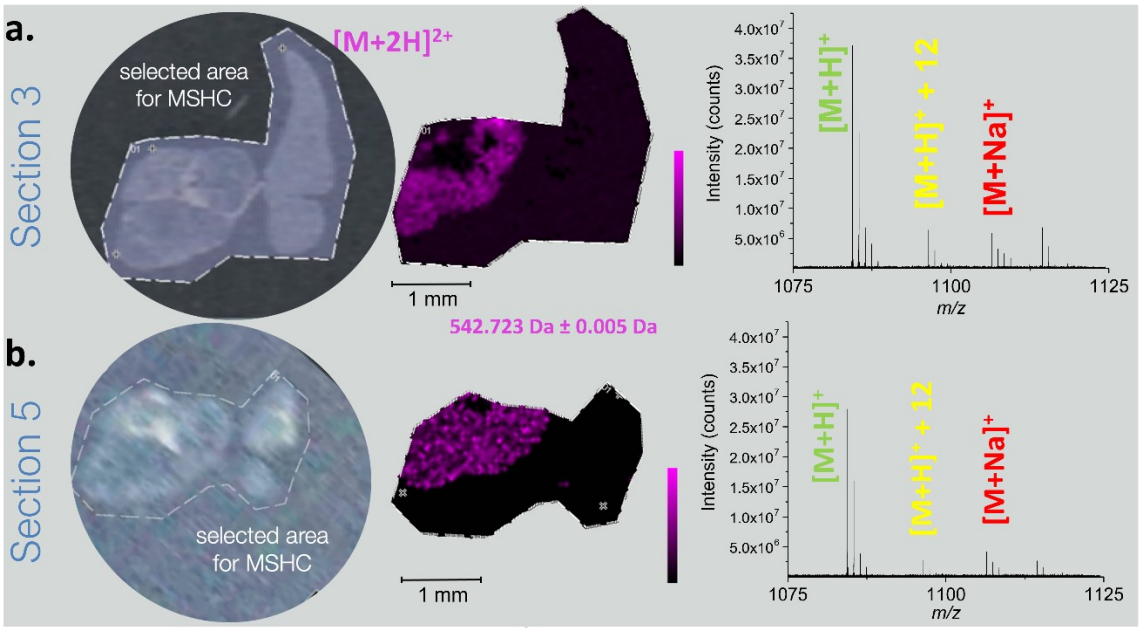

Figure SI1. MALDI-FT ICR images of doubly charged ions of Arg-Vasopressin species in two different parts (a. section 3 and b. section 5) of human pituitary biopsy.

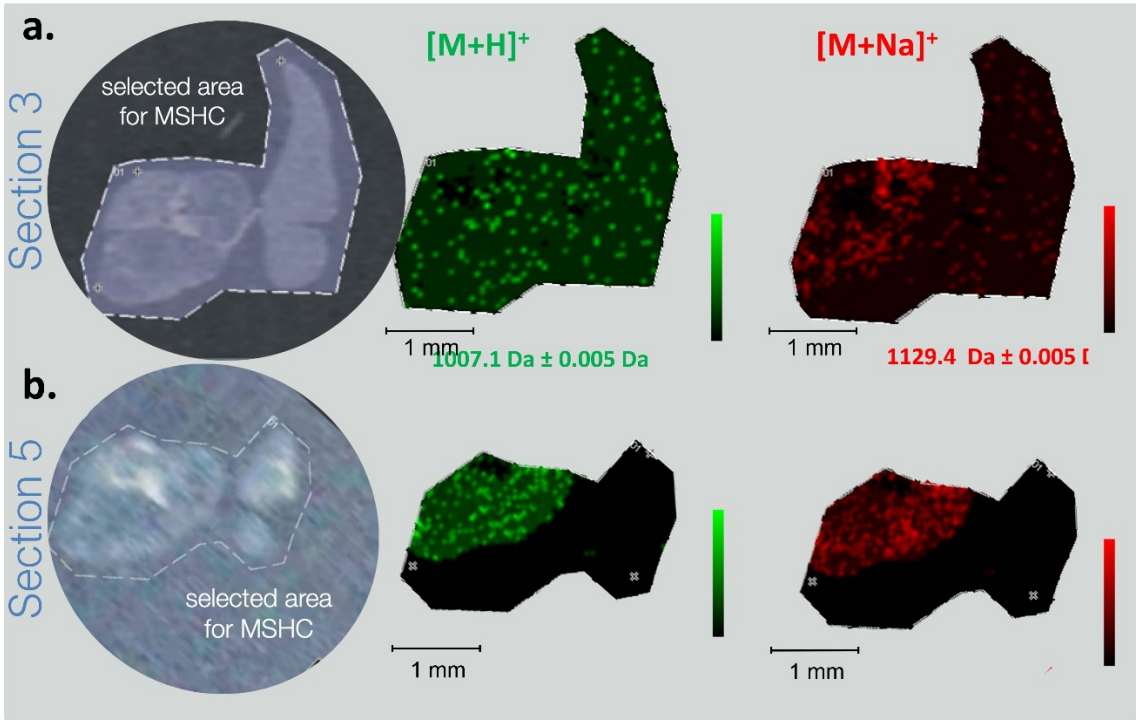

Figure SI2. MALDI-FT ICR images of protonated and sodiated ions of Oxytocin species in two different parts of human pituitary biopsy (a. section 3 and b. section 5). The intensity of the $[M+H]^+$ signal recorded for oxytocin in 'Section 3' did not exceed the background signal. This is

most probably reflecting the fact that (1) this section contains less protonated oxytocin compared to section 5, but also that (2) this peptide preferably ionizes by addition of Na^+ rather than protonation.