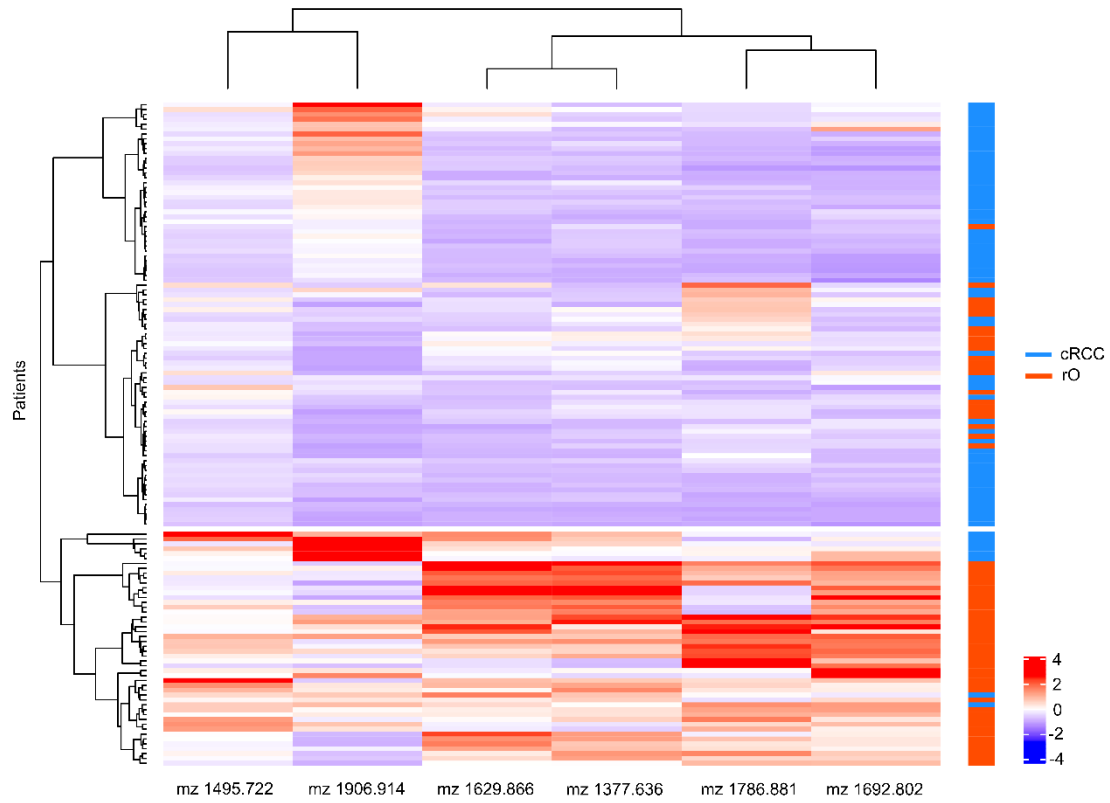


**Suppl. Figure 1: Examples of Mass spectrometry Images of selected m/z peaks in cRCC and rO.**

The intensity and distribution of the six selected m/z peaks in cRCC (green outline) and rO (blue outline) are displayed. One representative core of the tissue microarray is highlighted.



**Suppl. Figure 2: Hierarchical unsupervised cluster analysis of selected m/z peaks in cRCC and rO.**

Hierarchical unsupervised cluster analysis revealed two main clusters. The upper cluster is enriched with cRCC (blue), while the lower cluster is enriched with rO (red). All but m/z peak 1906.9 showed a higher intensity in rO compared to cRCC.

**Suppl. Table 1: Staining properties**

Antibody	Company	Clone	Pretreatment	Buffer incubation time (min)	Antibody incubation time (min)	Dilution
CD 117	Dako	c-Kit	Tris/Borat/EDTA, pH 8.4	48	24	1:100
CK 7	Ventana	SP52	Tris/Borat/EDTA, pH 8.4	32	24	RTU
Kaliumhexacyanoferrate	Merck					
Iron(III)-chloride	Merck					
Kernechtrot	Merck					