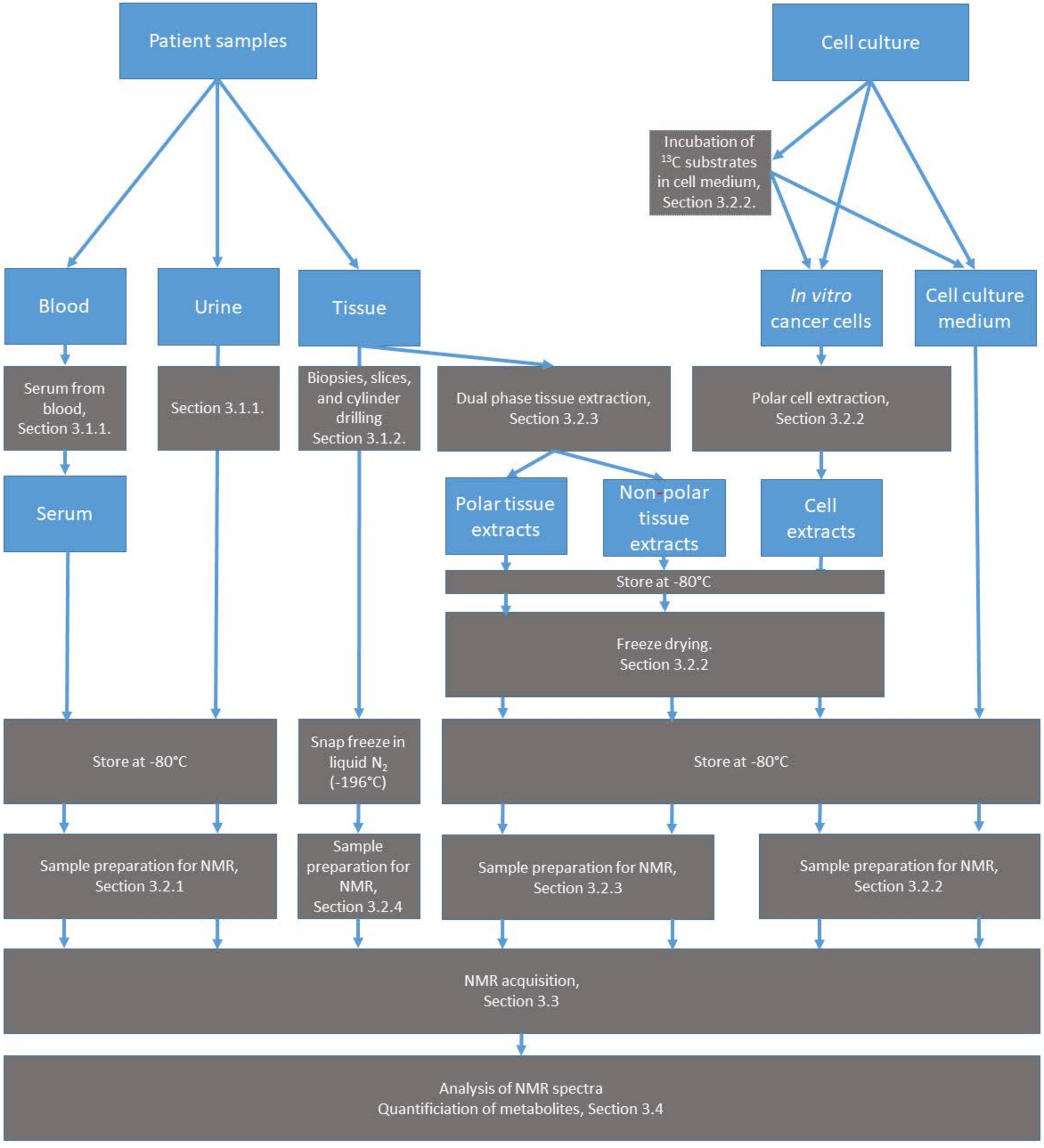
Patient samples
Cell culture
Incubation of ^{13}C substrates in cell medium, Section 3.2.2.
Blood
Urine
Tissue
In vitro cancer cells
Cell culture medium
Serum from blood, Section 3.1.1.
Section 3.1.1.
Biopsies, slices, and cylinder drilling Section 3.1.2.
Dual phase tissue extraction, Section 3.2.3
Polar cell extraction, Section 3.2.2
Serum
Polar tissue extracts
Non-polar tissue extracts
Cell extracts
Store at -80°C
Freeze drying. Section 3.2.2
Store at -80°C
Snap freeze in liquid N_2 (-196°C)
Store at -80°C
Sample preparation for NMR, Section 3.2.1
Sample preparation for NMR, Section 3.2.4
Sample preparation for NMR, Section 3.2.3
Sample preparation for NMR, Section 3.2.2
NMR acquisition, Section 3.3
Analysis of NMR spectra
Quantificiation of metabolites, Section 3.4