A) Men

B) Glutamate $\uparrow^+$ → CPS1 → Citruline $\uparrow^+$ → Arginine $\uparrow^+$ (only in men) → Nitric Oxide $\downarrow^+$

C) S100A10 $\uparrow^+$ → PL2G2, PL2G4 → LysoPC $\downarrow^+$ → LYPLA1 $\uparrow^+$ → GPC

† Observed differences
‡ Reported in literature

Smoking related genes and metabolites:
- Reversible
- Irreversible
- Undefined type

Enzyme:
- lysoPC
- Lypla1
- GPC
- PLA2G2, PLA2G4
- PLA2G10
- PC ae
- PC aa
- DHRS3
- ADH7
- CIPLA2
- GIIC sPLA2
- S100A10
- GPC1
- SULF1
- AACS

Other Gene:
- Serine
- Arginine
- Glutamate
- SDH
- NOS1
- SLC3A2
- AKR1B1
- KRAS
- SLC7A11

Undefined type:
- Smoking related genes and metabolites

† (only in men)
‡ (transmembrane transport)