

## Additional file 1. Search strategy

### PubMed

((Electronic Nicotine Delivery System) OR (Electronic Cigarettes) OR (E-Cigs) OR (E Cigs) OR (E-Cig) OR (E Cig) OR (E-Cigarettes) OR (E Cigarettes) OR (E-Cigarette) OR (E Cigarette) OR (Electronic Cigarette) OR (Cigarette, Electronic) OR (Cigarettes, Electronic) OR (E-Cig) OR (ECig) OR (Vape) OR (Vapes) OR (Nicotine Vaping) OR (Nicotine Vapings) OR (Vaping, Nicotine) OR (Vapings, Nicotine) OR (Ecigarette) OR (Electronic Cigarette)) AND ((Smoking, Cigarette[Title/Abstract]) OR (Smoker[Title/Abstract]) OR (Smokers, Tobacco[Title/Abstract]) OR (Smoker, Tobacco[Title/Abstract]) OR (Tobacco Smoker[Title/Abstract]) OR (Tobacco Smokers[Title/Abstract]) OR (Nicotine[Title/Abstract])) AND ((Marker, Biological[Title/Abstract]) OR (Biological Marker[Title/Abstract]) OR (Marker, Biologic[Title/Abstract]) OR (Biological Markers[Title/Abstract]) OR (Biologic Markers[Title/Abstract]) OR (Markers, Biologic[Title/Abstract]) OR (Biomarker[Title/Abstract]) OR (Markers, Biological[Title/Abstract]) OR (Markers, Immunologic[Title/Abstract]) OR (Immune Markers[Title/Abstract]) OR (Markers, Immune[Title/Abstract]) OR (Marker, Immunologic[Title/Abstract]) OR (Immunologic Markers[Title/Abstract]) OR (Immune Marker[Title/Abstract]) OR (Marker, Immune[Title/Abstract]) OR (Immunologic Marker[Title/Abstract]) OR (Surrogate Endpoints[Title/Abstract]) OR (Endpoints, Surrogate[Title/Abstract]) OR (Surrogate End Point[Title/Abstract]) OR (End Point, Surrogate[Title/Abstract]) OR (Surrogate End Points[Title/Abstract]) OR (End Points, Surrogate[Title/Abstract]) OR (Surrogate Endpoint[Title/Abstract]) OR (Endpoint, Surrogate[Title/Abstract]) OR (Markers, Clinical[Title/Abstract]) OR (Clinical Markers[Title/Abstract]) OR (Clinical Marker[Title/Abstract]) OR (Marker, Clinical[Title/Abstract]) OR (Biochemical Marker[Title/Abstract]) OR (Markers, Biochemical[Title/Abstract]) OR (Marker, Biochemical[Title/Abstract]) OR (Biochemical Markers[Title/Abstract]) OR (Markers, Laboratory[Title/Abstract]) OR (Laboratory Markers[Title/Abstract]) OR (Laboratory Marker[Title/Abstract]) OR (Marker, Laboratory[Title/Abstract]) OR (Surrogate Markers[Title/Abstract]) OR (Markers, Surrogate[Title/Abstract]) OR (Marker, Surrogate[Title/Abstract]) OR (Surrogate Marker[Title/Abstract]) OR (saliva[Title/Abstract]))

### Embase

'electronic nicotine delivery system':ab,ti OR 'electronic cigarettes':ab,ti OR 'e cigs':ab,ti OR 'e cigarettes':ab,ti OR 'e cigarette':ab,ti OR 'cigarette, electronic':ab,ti OR 'cigarettes, electronic':ab,ti OR 'e cig':ab,ti OR ecig:ab,ti OR vape:ab,ti OR vapes:ab,ti OR 'nicotine vaping':ab,ti OR 'nicotine vapings':ab,ti OR 'vaping, nicotine':ab,ti OR 'vapings, nicotine':ab,ti OR ecigarette:ab,ti OR 'electronic cigarette':ab,ti

AND

'smoking, cigarette':ab,ti OR smoker:ab,ti OR 'smokers, tobacco':ab,ti OR 'smoker, tobacco':ab,ti  
OR 'tobacco smoker':ab,ti OR 'tobacco smokers':ab,ti OR nicotine:ab,ti

AND

'marker, biological':ab,ti OR 'biological marker':ab,ti OR 'biologic marker':ab,ti OR 'marker, biologic':ab,ti  
OR 'biological markers':ab,ti OR 'biologic markers':ab,ti OR 'markers, biologic':ab,ti OR biomarker:ab,ti  
OR 'markers, biological':ab,ti OR 'markers, immunologic':ab,ti OR 'immune markers':ab,ti OR 'markers,  
immune':ab,ti OR 'marker, immunologic':ab,ti OR 'immunologic markers':ab,ti OR 'immune marker':ab,ti  
OR 'marker, immune':ab,ti OR 'immunologic marker':ab,ti OR 'surrogate endpoints':ab,ti OR 'endpoints,  
surrogate':ab,ti OR 'surrogate end point':ab,ti OR 'end point, surrogate':ab,ti OR 'surrogate end points':ab,ti  
OR 'end points, surrogate':ab,ti OR 'surrogate endpoint':ab,ti OR 'endpoint, surrogate':ab,ti OR 'markers,  
clinical':ab,ti OR 'clinical markers':ab,ti OR 'clinical marker':ab,ti OR 'marker, clinical':ab,ti  
OR 'biochemical marker':ab,ti OR 'markers, biochemical':ab,ti OR 'marker, biochemical':ab,ti  
OR 'biochemical markers':ab,ti OR 'markers, laboratory':ab,ti OR 'laboratory markers':ab,ti  
OR 'laboratory marker':ab,ti OR 'marker, laboratory':ab,ti OR 'surrogate markers':ab,ti OR 'markers,  
surrogate':ab,ti OR 'marker, surrogate':ab,ti OR 'surrogate marker':ab,ti OR saliva:ab,ti

Scopus

( TITLE-ABS-KEY (( electronic AND nicotine AND delivery AND system ) OR ( electronic AND cigarettes ) OR ( e-cigs ) OR ( e AND cigs ) OR ( e-cig ) OR ( e AND cig ) OR ( e-cigarettes ) OR ( e AND cigarettes ) OR ( e-cigarette ) OR ( e AND cigarette ) OR ( electronic AND cigarette ) OR ( cigarette, AND electronic ) OR ( cigarettes, AND electronic ) OR ( e-cig ) OR ( ecig ) OR ( vape ) OR ( vapes ) OR ( nicotine AND vaping ) OR ( nicotine AND vapings ) OR ( vaping, AND nicotine ) OR ( vapings, AND nicotine ) OR ( ecigarette ) OR ( electronic AND cigarette ))) AND ( TITLE-ABS-KEY (( smoking, AND cigarette ) OR ( smoker ) OR ( smokers, AND tobacco ) OR ( smoker, AND tobacco ) OR ( tobacco AND smoker ) OR ( tobacco AND smokers ) OR ( nicotine ))) AND ( TITLE-ABS-KEY (( marker, AND biological ) OR ( biological AND marker ) OR ( biologic AND marker ) OR ( marker, AND biologic ) OR ( biological AND markers ) OR ( biologic AND markers ) OR ( markers, AND biologic ) OR ( biomarker ) OR ( markers, AND biological ) OR ( markers, AND immunologic ) OR ( immune AND markers ) OR ( markers, AND immune ) OR ( marker, AND immunologic ) OR ( immunologic AND markers ) OR ( immune AND marker ) OR ( marker, AND immune ) OR ( immunologic AND marker ) OR ( surrogate AND endpoints ) OR ( endpoints, AND surrogate ) OR ( surrogate AND end AND point ) OR ( end AND point, AND surrogate ) OR ( surrogate AND end AND points ) OR ( end AND points, AND surrogate ) OR ( surrogate AND endpoint ) OR ( endpoint, AND surrogate ) OR ( markers, AND clinical ) OR ( clinical

AND markers ) OR ( clinical AND marker ) OR ( marker, AND clinical ) OR ( biochemical AND marker )  
OR ( markers, AND biochemical ) OR ( marker, AND biochemical ) OR ( biochemical AND markers ) OR  
( markers, AND laboratory ) OR ( laboratory AND markers ) OR ( laboratory AND marker ) OR ( marker,  
AND laboratory ) OR ( surrogate AND markers ) OR ( markers, AND surrogate ) OR ( marker, AND  
surrogate ) OR ( surrogate AND marker ) AND ( saliva ))