

**Supplementary Table S2** Cluster analysis of high-frequency major MeSH terms/MeSH subheadings of cell-free nucleic acids

Cluster	Number of MeSH terms*	Cluster analysis
0	29,10,52,65,92,40,27,85,33,51,56,28,4,74,94	<ol style="list-style-type: none"> <li>1. Colorectal and pancreatic neoplasms genetics: Proto-Oncogene Proteins p21(ras) and B-raf genetics</li> <li>2. Early detection of Cancer: biosensing techniques</li> </ol>
1	44,12,68,16,21,57,6,78,20,62,18,47,13,2,38	<ol style="list-style-type: none"> <li>1. DNA methylation and mutational analysis methods: high throughput nucleotide sequencing</li> <li>2. Lung neoplasms drug therapy and antineoplastic agents: protein kinase inhibitors</li> </ol>
2	82,77,39,60,49,1,53,86,5,89,35,46,36,15,54,31,9,66	<ol style="list-style-type: none"> <li>1. Cell-free nucleic acids sequence analysis for noninvasive prenatal testing</li> <li>2. Cell-free nucleic acids for genetic testing: chromosome disorders, prenatal, pre-eclampsia, Down syndrome diagnosis, Trisomy 13 syndrome and fetus metabolism tests</li> <li>3. Cell-free nucleic acids isolation and purification</li> <li>4. Urinary Bladder Neoplasms genetics and diagnosis</li> </ol>
3	67,95,64,26,90,72,75,63,93,48,79,81,88,17,80	<ol style="list-style-type: none"> <li>1. Melanoma, prostatic, esophageal and stomach neoplasms genetics and diagnosis</li> <li>2. Cell-free nucleic acids metabolism</li> </ol>
4	73,59,37,24,14,30,76,8,83,71,58,69,23,55,19	<ol style="list-style-type: none"> <li>1. Precision Medicine</li> <li>2. Circulating tumor RNA metabolism and analysis</li> <li>3. Hepatocellular and non-small-cell lung carcinoma genetics and diagnosis</li> </ol>
5	43,50,7,61,87,84,3,32,22,42,70,34,45,91,25,11,41	<ol style="list-style-type: none"> <li>1. Circulating neoplastic cells metabolism</li> <li>2. Breast neoplasms genetics and diagnosis</li> <li>3. Exosomes, circulating microRNA and lcnRNA genetics</li> </ol>

#### 4. Coronary artery disease, type 2 diabetes mellitus diagnosis

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\*Represents the serial number of high-frequency major MeSH terms/MeSH subheadings shown in Supplementary Table 1.