

Appendix 1. Questionnaire on utilization of cancer-related big data

Awareness of big data related to cancer

1. How much do you know about big data related to cancer?
 - ① Know very well
 - ② Know a little
 - ③ Heard about it
 - ④ Don't know
2. Do you think big data is being used in healthcare?
 - ① Very well
 - ② Well
 - ③ Not very well
 - ④ Not at all
3. Do you think you need to use big data in your current health care, business or research?
 - ① Strongly agree
 - ② Agree
 - ③ Disagree
 - ④ Strongly disagree

Usage of big data and satisfaction

4. Do you work with big data?
 - ① Yes
 - ② No (-> No.9)
5. How often do you use big data in your current business and research?
 - ① At least once a day
 - ② At least once a week
 - ③ At least once a month
 - ④ More than once a year
 - ⑤ Don't use it at all.
6. With what type of data do you currently work in your research? (Select all that apply.)
 - ① Cancer Diseases
 - ② Diabetes / Metabolic Diseases
 - ③ Cardio- Circulatory System Disease
 - ④ Neurobiology Diseases
 - ⑤ Digestive system diseases
 - ⑥ Respiratory Diseases
 - ⑦ Infectious Disease
 - ⑧ Dermatology Disease
 - ⑨ DNA/RNA/protein sequence
 - ⑩ Other (please specify)

7. Please select the source and satisfaction of the big data you have used.

	satisfaction				
	Very satisfied	Satisfied	Natural	Dissatisfied	very dissatisfied
<input type="checkbox"/> In-house data	①	②	③	④	⑤
<input type="checkbox"/> Commercial data	①	②	③	④	⑤
Public data (domestic)					
<input type="checkbox"/> Ministry of Food and Drug Safety	①	②	③	④	⑤
<input type="checkbox"/> Health Insurance Review and Assessment Service	①	②	③	④	⑤
<input type="checkbox"/> National Health Insurance Service	①	②	③	④	⑤
<input type="checkbox"/> Public data (overseas)	①	②	③	④	⑤
<input type="checkbox"/> Open Source ware treated data: news release	①	②	③	④	⑤
<input type="checkbox"/> others	①	②	③	④	⑤

8. What is the purpose of using big data? (Select all that apply.)

- ① Development of web, application (App), and other services using the cancer data
- ② Collecting and utilizing data regarding work (service projects, proposals, reports, etc.)
- ③ Acquiring information for starting companies or finding new business opportunities
- ④ Collecting data for academic research
- ⑤ Collecting data for policy research
- ⑥ Collecting data for genome research
- ⑦ Collecting data for new drug development
- ⑧ Other (please specify)

Demands for releasing cancer big data to the public

9. Please select the items you wish to provide.

No.	Classification	check
1	Diagnosis	
2	Cancer Type at Diagnosis status	<input type="checkbox"/>
3	Initial Stage	<input type="checkbox"/>
4	Metastasis	<input type="checkbox"/>
5	Recurrence	<input type="checkbox"/>
6	Physical Measurement	<input type="checkbox"/>
7	Test	
8	Laboratory Test	<input type="checkbox"/>
9	Image Test	<input type="checkbox"/>
10	Cancer Genetic Test	<input type="checkbox"/>
11	Pathology	
12	Surgical Pathology	<input type="checkbox"/>
13	Immunopathology	<input type="checkbox"/>
14	Molecular Pathology	<input type="checkbox"/>

No.		Classification	check
12	Operation	Operation Information	<input type="checkbox"/>
13		Operation Finding	<input type="checkbox"/>
14		Pre-Operation Clinical findings	<input type="checkbox"/>
15		Post-Operation Complications	<input type="checkbox"/>
16	Treatments	Chemotherapy	<input type="checkbox"/>
17		Hormone Therapy	<input type="checkbox"/>
18		Radiation therapy	<input type="checkbox"/>
19		Other treatments	<input type="checkbox"/>

10. Feel free to use any cancer big data that you want to release in addition to the items selected above.

11. What data format do you want to receive big data related to cancer?

- ① File(xls, xlsx, csv)
- ② File(json, xml)
- ③ Open QPI
- ④ LOD(Linked Open Data)
- ⑤ Other(please specify)

Demands regarding the release of big data related to cancer

12. For statistical data using cancer big data, are you willing to pay the price?

- ① Yes
- ② No

13. How do you mainly intend to use the data? (Select all that apply.)

- ① Development of web, application (App), and other services using the cancer data
- ② Collecting and utilizing data regarding work (service projects, proposals, reports, etc.)
- ③ Acquiring information for starting companies or finding new business opportunities
- ④ Collecting data for academic research
- ⑤ Collecting data for policy research
- ⑥ Collecting data for genome research
- ⑦ Collecting data for new drug development
- ⑧ Other (please specify)

14. What do you think are important things to consider when releasing the cancer big data?

- ① A sufficient amount of data
- ② Faithful details of data
- ③ Providing valuable data
- ④ Improving data accuracy
- ⑤ Providing timely data
- ⑥ Up-to-date data
- ⑦ Improvement of usability through standardization
- ⑧ Other (please specify)

15. Please feel free to write down any suggestions for successful release and use of cancer big data.

Basics for Statistical Analysis

16. What position(s) do you currently hold?

- ① Sole Proprietorship / Start-up company
- ② SMEs
- ③ Major company
- ④ University Institution (Professor / Researcher)
- ⑤ Public Institution
- ⑥ Other (please specify)

17. How many years experience do you have in your field?

- ① < 1 year
- ② 1 year to < 5 years
- ③ 5 years to < 10 years
- ④ ≥ 10 years

18. In what academic discipline is your research? (Select all that apply.)

- ① Oncology
- ② Pathology
- ③ Genetics
- ④ Biochemistry
- ⑤ Bioinformatics
- ⑥ Other (please specify)

Thank you for your participation.