rent within the scope necessary to accomplish the purpose of its use.

(5) Safety management shall be implemented to ensure that personal information is not leaked, lost, or damaged.

## 3.4 Handling Personal Information in the Humanities and Social Sciences

This discussion has been focused on clinical research thus far; however, research involving human subjects goes beyond clinical research. Some fields of the humanities and social sciences, such as history and sociology, can also involve personal information.

For instance, when one presents results while quoting unpublished documents or interview records, the following points need to be considered:

- In the original interview, to obtain consent from the interviewee concerning the objectives of the research, scope and format of disclosure, and whether or not his/her approval will be obtained before presentation.
- When quoting an interview record, to mention the interviewee's name, position and occupation, date, time, and location of the interview within the scope agreed upon by the interviewee.
- When quoting a historical source or document publicly displayed in an archive or a historical library, to cite the name of the archive or library, title of the source/document, document number, and other details. When using a deposited document and the deposition agreement requires that the depositor be shown a rough draft of your presentation in advance, to be sure to comply with that requirement.
- If you have received special permission from an individual or a corporation to browse historical sources or documents, to obtain prior agreement and clarify the disclosure conditions, including to what extent you may disclose the actual resources/documents, their existence, and items containing personal information.
- When quoting historical resources or documents, to pay especially close attention to information such as an individual's birth, lineage, economic status, death (including history of illnesses), and criminal history, because, while the individual may have



lived in the past, such information may violate the privacy of his/her heirs or successors.

## 4. Collecting, Managing, and Processing Data

Taro's research team has, with the cooperation of related offices of the university, completed the process of obtaining informed consent from all the human subjects, and is making preparations to begin their research. Just as they were about to begin their experiments, another professor said to him, "As we go about conducting our research, shouldn't we decide in advance how we will share the data obtained among the collaborating researchers? The research plan does stipulate that the data will be shared in an appropriate manner, but provides no specific indication on how that is to be done. Besides, differences exist between the humanities and science researchers in the way they keep their research notes." Taro decided to first discuss the experimental data and how they are recorded with the postdoctoral fellows and graduate students in his laboratory. He asked them, "As our group participates in this research, the way each of us keeps lab notes and maintains raw data may differ from one another. What rules has our laboratory followed thus far? When carrying out joint research with outside organizations, does anyone know how to handle lab notes and data?"

## 4.1 Data and Their Importance

Data comprise "all types of information based on facts, used for rational deduction." The importance of data in research is obvious; without data, there could be no research. What constitutes data varies from field to field. In history,



for example, data include not just printed materials and books but also hand-written letters, artifacts, and a wide variety of other things. In sociology and anthropology, survey results and interview records also make up crucial data. In the empirical

world of science, data include measurement data and image data obtained via experiments.

To assure the reliability of data in scientific research, one must make sure

- (1) that the data are obtained based on appropriate methods,
- (2) that the data collection does not involve intentional wrong-doing or mistakes due to negligence, and
- (3) that the data obtained are properly stored and their originality is maintained.

With the exception of few special circumstances, the quality of all scientific research is determined upon the assumption that the "data" were obtained using the utmost care and rigor available at the time. Accordingly, scientists must handle "data" with integrity in every phase of their research activities.

Collection of data differs depending on the research field, theme, objective, and other factors, so the procedures established for handling them in one's own field of specialization should be followed. However, at least in research involving experiments, there are some common factors on "record-keeping and the strict handling of research and investigation data." Let's take a look at them.

## 4.2 Purposes of Lab Notes

In experimental fields, data are generally recorded in the so-called "lab notes" (sometimes referred to as research notes or experiment notes). Well-maintained lab notes that contain data and ideas recorded in an appropriate manner serve at least three crucial roles. First, they prove that the research has been conducted fairly and properly. Second, when the research produces a result, the lab notes can prove its originality. Third, they make the data and ideas transparent in the labora-

tory and in the research group, serving as a tool for sharing and effectively applying the data, i.e., a tool for "knowledge management." <sup>12</sup>

The National Institutes of Health (NIH), a central agency for life-science research in the United States, states the following concerning the purposes of recording daily activities in lab notes:<sup>13</sup> First, if the experiment produces a result,

