The image shows a spiral-bound notebook with a light brown, textured cover. The spiral binding is on the left side. The text is centered on the cover.

What every Psychiatric Researcher should know about Informatics

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Informatics is NOT inextricably
linked to:

- ✓ computer science or IT
- ✓ artificial intelligence
- ✓ automated data mining
- ✓ restricted to large-scale, specialized data formats



Informatics IS:

- ✓ as integral to experimental design as statistics!

“the future value of data”:

- ✓ designing experiments knowing that today’s hypothesis is incomplete
- ✓ so that later on, you will want to re-analyze the data in light of what you know then



both samples and primary data need to be archived:

- ✓ represented in a form that permits one to retrieve, understand and mine the data and to pool data collaboratively with others
- ✓ containing “calibrating” data that permit one to compare the data with studies carried out by other groups
- ✓ informatics and data mining is not incompatible with hypothesis-driven research!



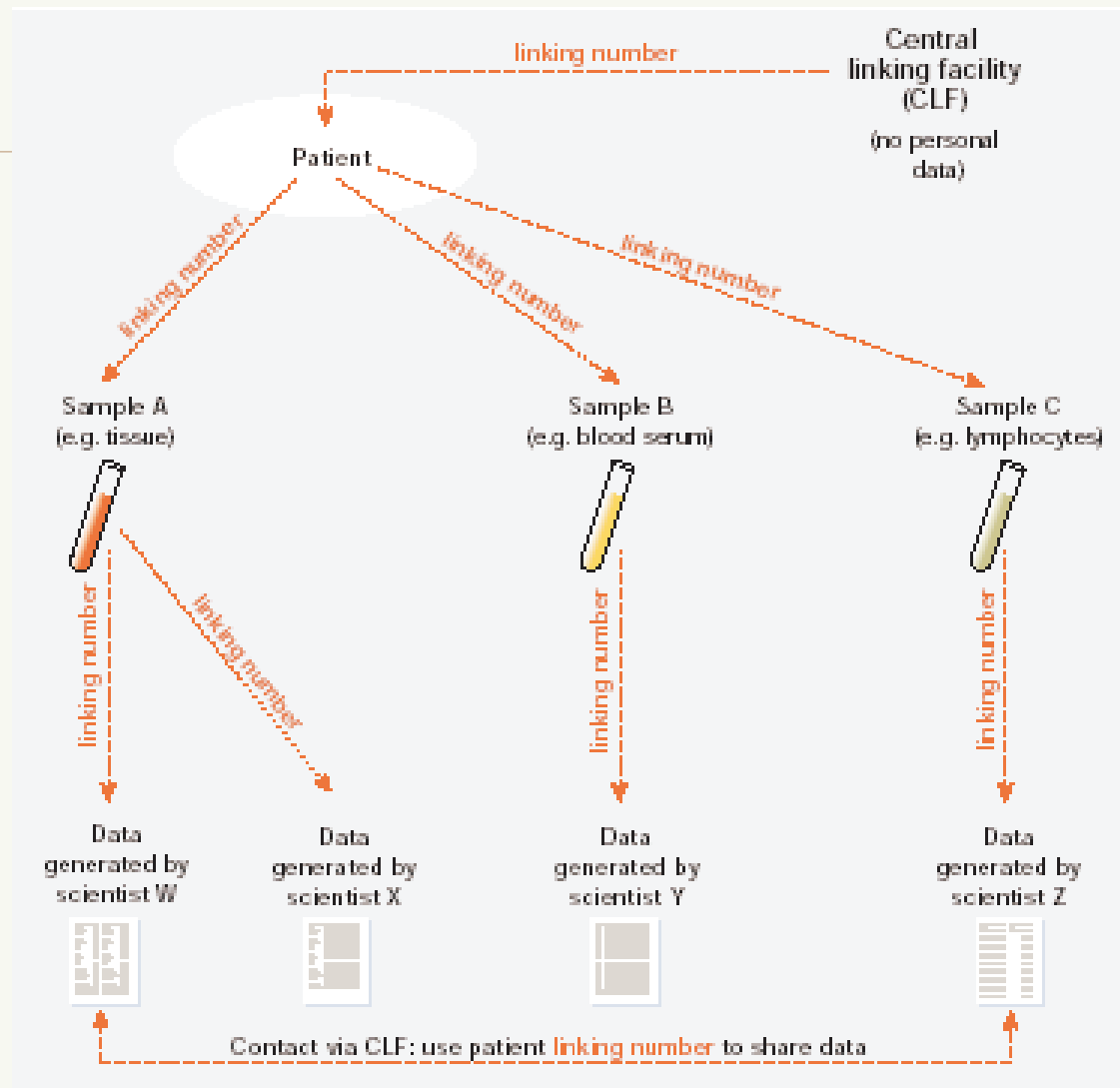
“the future value of collaboration”:

- ✓ designing experiments knowing that you cannot measure all of the relevant parameters (behavioral, clinical, demographic, physiologic, biochemical, genetic, environmental, imaging, medication, etc.) so that it is desirable to link your data with others’ same or different types of studies.



Different approaches to collaboration:

- ✓ linking together similar kinds of data on different subjects (BIRN)
- ✓ linking together disparate kinds of data on the same subjects (HUBIN)
- ✓ linking together disparate kinds of data on different subjects (linking facility, inferences across linked databases)
- ✓ electronic notebooks, web-based publishing and sharing of data; search and analysis tools



Policy Issues:

- ✓ determinants of disease are not disease-specific, therefore databases of subjects should cut across diagnostic categories.
- ✓ should blood and DNA be routinely banked on all subjects?
- ✓ Who should pay for archiving samples and data? Who owns these resources? Who is responsible for maintaining and annotating them?



Patient Consent Forms for Future Studies

- ✓ To allow archiving of data and samples
- ✓ to allow data sharing
- ✓ to allow new studies and re-analysis by others who are not part of the original study, and conducted for different reasons than the original study.
- ✓ Any available examples or templates? Is it worth developing one?
- ✓ Smalheiser@psych.uic.edu



Why every Psychiatric Researcher should know about Informatics:

- ✓ Because informatics has the promise of accelerating discovery in psychiatry
- ✓ Because psychiatric researchers know best how to represent and analyze their own data
- ✓ Because it is too important to be left to computer scientists!
- ✓ Questionnaire to fill out....